

Appendices

Appendix A: Published papers based on chapters

A.1. Keates, N. & Beadle-Brown, J. (under review). Theatrical improvisation and autistic people: a scoping review. Advances in Autism. (Chapter 2)

Introduction

Theatrical improvisation, or improv comedy or theatre (henceforth, this paper will use theatrical improvisation to mean all terms), is readily available in which the general public can participate. Frost and Yarrow (2007) suggested that improvisation is the use of present resources to create physicalised ideas spontaneously and in response to the environment without judgement. Theatrical improvisation has been further developed through practice (Keates, 2017; Napier, 2015). It is now found as an art form of comedic (and sometimes dramatic) theatre as a performance constructed live. It uses make-believe, play, and pretend through honesty and commitment from the performers, which means that they improvise by being present in the moment and taking risks.

Modern theatrical improvisation began with Jacob Levy Moreno in Vienna, Austria, before he moved to New York, USA (Moreno, 1922). In the United States of America, Viola Spolin developed her work from Neva Boyd (in the 1920s) to form a way to engage children with theatre as social work (Spolin, 1999). In the United Kingdom, Keith Johnstone developed improv from a writer’s group at The Royal Court Theatre (Dudeck, 2013). These have led to their own art forms or multiple forms (e.g., improv comedy; Hines, 2016). The *Impro System* led to a different focus and pedagogy of theatrical improvisation than did the Spolin-inspired or ‘Chicago’ improv comedy. These are the two most common Anglo-centric strands of theatrical improvisation leading to ‘impro/v’. However, another form of theatrical

improvisation came from Jonathan Fox, who formed Playback Theatre in New York in the 1970s, whereby performers gain insight into the lives of the audience and reflect this back through artistic expression (Fox & Dauber, 1999). In the same era, Augusto Boal (2000) began using improvisation in workshops for social change and in performances to battle oppression. More loosely, Jacque Lecoq (2002) formed a way of clowning that has led to a practice of theatrical clown and improvisation in training and liveness in performance; however, clowns have existed before this ‘modern’ era and there is a rich history to this theatrical form (Townsen, 1976). As such, Frankie Andersen started a form of theatrical improvisation called fools (based on clowning), which has various styles (i.e., Jonathan Kay and Holly Stoppit, the latter being more closely aligned with Andersen.) There are other forms of theatrical improvisation, such as live action role-play (LARP), and even play itself can be theatrical (e.g., social play, Göncü & Perone, 2005).

Research in this field has limited theoretical links between autism and theatrical improvisation. For example, Lerner & Levine (2007) suggest that theatrical improvisation fits various perspectives of autistic people, such as a cognitive model where improvisation can *develop* perspective-taking, or a model of central coherence and improvisation that may *develop* autistic people’s use of global processing (i.e., using the integrated whole). They further suggest the scope for theatrical improvisation to offer social pragmatics (non-verbal communication) and social performance (e.g., implementing social knowledge; Gabriel et al., 2016) and the use of their preferred topics. Moreover, it is possible to form basic links by acknowledging autistic voices and addressing elements of the diagnostic criteria. Addressing the Double Empathy Problem (Milton, 2012a) and the need for autism acceptance are some of the main goals of autism advocacy work (Broderick & Ne’eman, 2008; Hughes, 2016; Kapp, 2018). Theatrical improvisation can address this through inclusive groups, expression

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in the arts, and acceptance that is fundamental to theatrical improvisational art forms (Bega et al., 2017). Communication between autistic and neurotypical people can potentially develop using theatrical improvisation, as art forms increase people’s ability to be clear and effective in their interpersonal skills (Bernstein, 2014). In any case, theatrical improvisation develops flexibility and spontaneity (Hainselin et al., 2018) because of the implicit requirements of improvising for stage presentations (Johnstone, 1981). Therefore, it is worthwhile to explore the potential opportunities for autistic people. Finally, theatrical improvisation has been found to significantly decrease anxiety symptomology within neurotypical populations (Felsman et al., 2018; Krueger et al., 2017). This could have important implications for autistic people as anxiety is commonly experienced (e.g., Spain et al., 2018; White et al., 2015).

Some autism interventions use improvisation, even if not explicitly identified as part of the intervention. For example, the Socio-Dramatic Affective-Relational Intervention involves getting participants to improvise in the moment (Lerner & Levine, 2007). Therefore, the rationale behind the use of improvisation must exist, and the suitability of theatrical improvisation should be researched. Theatrical improvisation can be linked to the development of social perceptions and formation of social interactions (Sawyer, 2003; Fu, 2018). Therefore, engagement in theatrical improvisation can align actions (Sheesley et al., 2016) and thinking (Hainselin et al., 2018) with the underlying philosophical core of theatrical improvisation (i.e., agreement and co-creation).

Based on the above points, more research on theatrical improvisation is required. There is a need to explore the value of theatrical improvisation to identify the value of individual elements and mechanisms underlying any impact. To date, only Maas (2019) includes a stand-alone literature review on this area of interest; however, it focuses on

occupational therapy and improvisational theatre and is not a full review systematically identifying all research and synthesizing findings. Other authors, such as Gabriel, Lerner, Guli, and Corbett all include non-systematic literature reviews of varying lengths in their reports of studies and other writings.

This review sought to find all relevant research on autistic people's use of theatrical improvisation, and its application as an intervention. The purpose of the scoping review was to understand the function of improvisation from a theatrical, character-based context, and to identify the strengths and gaps in the current research. The following research questions guided the scoping review.

- What research already exists related to the use of theatrical improvisation with autistic people?
- How has theatrical improvisation been used in interventions, whether evaluated or not?
- What are the gaps in the current research?
- What does previous research or studies on interventions using theatrical improvisation tell us about potential areas of impact or outcomes for autistic people?

Methods

Study Design (stage 1)

A scoping review conducts searches to inform a knowledge synthesis (Colquhoun et al., 2014). They can explore the size, range, and characteristics of the evidence for any topic (Tricco et al., 2018). This review uses the methodology of Joanna Briggs Institute (2015).

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They stated that scoping reviews are chosen when mapping the key concepts of an area of interest from a breadth of sources. However, unlike systematic reviews, they do not assess the quality of studies (Levac et al., 2010).

This review follows the adaptations of Arksey & O'Malley's (2005) framework by Levac et al. (2010). Levac et al. (2010) advanced the methodology to improve the process through a six-step procedure to ensure detail and precision in the process of implementing the review (as per reported methods).

What is more, the study is informed by the neurodiversity paradigm. This is explained by Walker (2021) in three fundamental principles: (i) neurodiversity being a natural form of diversity; (ii) there is no 'right' form of cognition; and (iii) social dynamics manifest similarly to other kinds of diversity (Walker, 2021).

Search strategy / Identifying Relevant Studies (stage 2)

The search was conducted using three electronic bibliographic databases, namely, CINAHL, MEDLINE, and PsycInfo. Pertinent key terms were selected to locate all relevant papers. They were “autism”, “anxiety”, “improvisation”, “theatre”, “comedy” and the appropriate synonyms, including forms (“forum”, “playback” and “commedia”). Boolean operators were used (“AND”, “OR”, and “N2”, the latter being near x word by a maximum of two words away, and to ensure the terms were relevant to one another). An example of the use of Boolean operators is improv* N2 comed* OR theat*. The initial records were retained for further review if any appropriate term was present. The search was conducted between 12th and 15th April 2021.

To ensure no omissions of relevant papers, further searches were conducted using Google Scholar and through extensive bibliography and author searches. Older papers that

were not available online required contacting the journal via email to manually search for anything relevant. Similarly, contacting the key authors supported the insurance that all available texts were collected.

Table 1. Inclusion and Exclusion Criteria

Inclusion Type	Criteria
Geolocation	All
Age	All
Diagnosis	Autism, Asperger's Syndrome, PDD-NOS
Publication type	Peer-reviewed journal articles, Books, Reports
CONCEPT AND Intervention type	Performative, character-based, theatrical improvisation (including play, role-play, and forms of theatrical improvisation), excluding non-human interface, therapy, music and dance

Data sources, studies sections, and data extraction (stage 3 and 4)

The inclusion and exclusion criteria (see Table 1) provided the boundaries for this review. All forms of therapy were excluded for a number of reasons: i) all therapy is improvisational in nature; ii) the overwhelming amount of data would engulf the findings over examining theatrical improvisation thus limiting synthesis; iii) therapy provides a medical perspective, and this would subsume the findings with deficit-based perceptions of autistic people. Other forms of theatrical improvisation, such as dance and mime are also

removed from character-based improvisation which is of interest. Studies or texts that used scripted theatre that clearly stated character-based improvisation were included. Using the above criteria, the number of initial reviewed papers and texts was reduced from 966 records to 100. Duplicate studies were removed, and titles and abstracts were read to locate relevant texts using these criteria (see Table 1 and specific reasons noted in figure 1). A total of 100 records met the criteria for a full-text review. The total number of articles ultimately included was 32 (Figure 1).

Figure 1

PRISMA flowchart (modelled on Moher et al., 2009)

[insert Fig. 1.]

The fourth stage of the scoping review framework was extracting and organizing the data. Being informed by the neurodiversity paradigm meant that data were identified in relation to the fundamental principles. Moreover, this framework influenced the organisation of data and how the findings have been reported; for example, it is lesser identifiable if autistic people can play or learn to play due to the dependency on normative constructs of play. For each included paper, the following data were extracted: age, sex, diagnosis, number of participants, research design and focus, the methods used, expected outcomes, measures implemented, comparison groups, and limitations or weaknesses. Their findings (both qualitative and quantitative) were recorded in the same table in Microsoft Office Excel (version 2013). Because of the substantial variation in the nature of the collected data, it was not possible to synthesise the numerical data; however, these data were extracted for qualitative synthesis.

Data analysis (stage 5)

The fifth step in the framework is to prioritise the data that answer the research questions and use a numerical summary. Furthermore, both Arksey and O'Malley (2005) and Levac et al. (2010) suggested organising the data into themes. Therefore, to accomplish a complete view of how theatrical improvisation has been used with autistic people, qualitative content analysis was conducted on the literature (as per Joanna Briggs Institute's methodology, 2015). The procedure used was based on Bengtsson's (2016) decontextualization, recontextualization, categorisation, and compilation. Decontextualization was applied through initial notes and thoughts on each text. This was then recontextualised by inserting the data into the extraction table (forming codes from this collation of data). Thereafter, the codes were categorised and compiled into themes.

Stakeholder involvement (stage 6)

Finally, Levac et al. (2010) suggest using a (community) stakeholder group to check findings and reach a consensus on accuracy according to their interpretation. For this review, the stakeholders were an online autistic cohort contactable via email, recruited via university and social media. They confirmed that the findings of the review matched their experiences and understanding of the literature.

Results

The use of theatrical improvisation with autistic people?

The form of improvisation differed across texts: play, impro(v), process or creative drama, comedy, live action role-play, playback theatre and clown. In these cases, some form of spontaneous creation was implemented, such as spontaneous play, characterisation, scenes, retelling of someone's story through enactment, or a clown routine.

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Remediation and liberation were two key factors that can be noted in the literature, with either the focus on remediating a ‘deficit’ as something participants’ perceptively lack, or freeing the autistic persons to be themselves or play as they desired. Of the texts reviewed, 81% focused on the remediation of autistic participants in some way (e.g., training social skills). All texts could be interpreted within this dichotomy, meaning that 19% were seemingly focused on liberation. Similarly, eight of the texts (25%) concerned theatrical improvisation as art. Consequently, the majority of the studies focused on remediating or intervening with autistic people to address deficits, instead of the art of theatrical improvisation being explored for liberation or for its art with autistic people.

Interventions, evaluation and research gaps

Study Design and participants

Of the 32 texts, 15 studies empirically evaluated some form of theatrical improvisation intervention (see studies in Table 2 in the supplementary materials¹⁻¹⁵). 17 of the papers (53% of the included texts) described an intervention, did not present any data, or only presented anecdotal data¹⁶⁻³², but commented on the intervention design or implementation.

23 of the included papers reported a sample size of $n = 338$, with 35% of the 23 papers included between one and three participants. Nine papers^{1-3,6,7,10,12,27,28} had a sample size of ten or more participants. 27 of the 32 studies included children under the age of 18 years, but two studies^{18,28} included adult participants (Mage 12.80 years, range 3 – 62). Eighteen papers^{1-4,6-8,10-12,14-16,20,28,29,30,32} reported the gender of the participants (only the binary of male = 228 or 75% and female = 75 or 25%). Information on diagnosis was available for 21 papers^{1-3,6-12,14-16,20,21,24,27,28,30-32}. 22 texts had participants diagnosed with

autism, with seven papers (including overlap) identifying Asperger's Syndrome or PDD-NOS as diagnoses. Nine chapters within books about autistic people had no diagnosis reported. This identifies the sample size as a possible issue, adults as an under-represented population, and mostly males recruited in this body of research.

Intervention Type

The information about the extent of the use of improvisation was unclear, meaning there is a gap in research specifically exploring theatrical improvisation. Of the 32 texts, five studies^{10,16,20,23,26} focused on improv. Less than 20 percent of the studies discussed the 'Imagining Autism' project^{1,15,27,28,30-32} (n=6). Three studies^{6,13,22} (9%) focused on the 'Social Competence Intervention Program', and another three studies^{2,3,7} (9%) reported on the SENSE Theatre intervention.

Nine interventions^{2,3,6,7,11,13,22,24,26} used additional time or people to support the outcome. These entailed non-autistic peer group support, video modelling, and homework. Home assignments had parents support the practice outside of the sessions, similar to the demonstration of desired outcomes from peer support and video modelling.

Potential areas of impact or outcomes for autistic people

Eight studies^{1-4,6,7,14,15} used measurement instruments, with three papers¹⁻³ using the Autism Diagnostic Observation Schedule (ADOS). The remaining five papers used a variety of tools to assess outcomes according to their focus (see Table 1).

Most studies focused on communication and social skills^{1-4,6, 8,9,11-13,15-19,21-23,26,29} (n=20; 63%). Three papers^{20,29,30} focused on cognition and cognitive skills. The remaining nine papers had a unique focus (e.g., anxiety).

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Further analyses, beyond descriptive analysis, were conducted using content analysis. This generated four themes: i) autistic people can engage in make-believe; ii) the common outcome is social communicative skills; iii) improvisation promotes the acceptance of self and others, and not judgement; and iv) improvisation promotes personal development and emotional well-being. Themes were generated across all the studies, regardless of whether they focused on theatrical improvisation as art or intervention.

Autistic people can make-believe

The elements of make-believe, creativity, and imagination were present or developed in 22 papers^{1,3,5,7,8,10-12,14-18,22,23,25-27,29-32}. The operationalisation of these concepts was not reported, but rather more informal impressions (i.e., layperson understanding of these concepts). Noticeably, these were reported across texts on theatrical improvisation as an intervention and art.

Autistic participants played^{1-3,5-7,12-14,17,21,25,27,28,30,32} and pretended^{1,8,13,14,17-19,24,27,28,31} or were provided opportunities during the intervention sessions. Improvements in demonstrable ability and complexity of play were observed following sessions^{3,8,14,17,29}. Participants became increasingly more invested in the pretend³⁰⁻³², which led to the ability to bend the rules of the game to play for the play's sake³¹. Some interventions were designed for participants to engage in cooperative co-creation and ideation^{19,22,25}. One study described how the researcher (Murray) had to learn that his autistic group was already playing, and he had to join in with them²⁵. Murray determined that no one should have to 'prove' their skills at playing or improvising, and wonder if some people do not get diagnosed because of their capabilities.

Some studies reported that autistic people's imagination develop through interventions^{10,11,13,17,25,27} and that people become more socially and cognitively flexible through the games and interventions used^{9,10,16,18,19,23}. Although, one paper¹ found no significant changes in creativity, Mendez-Martinez and Fernandez-Rio¹⁰ found that creativity developed through spontaneity and increased autistic participants' imagination.

A common outcome was social communicative skills

Social and communication skills were found to be common outcomes of the texts, including empathy and emotions and communication and social skills. Changes in social and communication skills were found in 20 papers^{1-7,9-13,15,17,18,22,23,25,27-32}. Six studies formally measured related constructs^{2,3,6,7,11,15} (see Table 1). Seven papers^{7,9,11,15,17,22,25} proposed possible developments in joint attention and improved expression through verbal (e.g., tone of voice) and nonverbal communication (e.g., body and facial expressions).

Participants' socialisation has been reported to improve in a variety of ways: being accepted, knowing the other participants (and their autistic identities)¹⁵, being part of the group (that occurred with the practitioner and peers^{10,28}), and because of the safe, positive environment^{7,15} supported social improvements. Developments in reported social functioning were identified by give and take in communication^{6,17,22}. The ability to assess and respond to social ambiguous situations, understand themselves and others, and grow in social competence was asserted to be due to intervention designs^{17,22}. Moreover, participants were reported to seek social contact with confidence that led to friendships^{7,11}. Of particular note, Müller et al.¹² found social experiences and social support alleviated social anxiety and improved social connectedness.

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The findings from the research in the review included improvements in the recognition and use of emotions and (affective and cognitive) empathy. Affective empathy is an unconscious response to another person’s emotional state (Davis, 1983), whereas cognitive empathy refers to understanding others’ thoughts and feelings without a sense of familiarity with it (Mazza et al., 2014). Three studies found that cognitive empathy develops during interventions^{2,3,8}. For example, group effects on Theory of Mind have been reported². In three papers^{27,31,32}, affective empathy improved during the interventions, with signs of empathy noticeable by the researchers when the woodpecker's eggs were stolen³¹ (however, this was not measured because of the nature of arts-based research).

The recognition of emotions may improve throughout the interventions; for example, there was a significant result from baseline to follow-up, but this was not noticeable post-intervention¹. Similarly, in Playback theatre, autistic people need to understand life stories and empathise with them, including conveying inner feelings and using pretend actions to elicit feelings¹⁸. Similarly, using a safe space (asserted by the authors) can help people share their feelings, and this was constructed to help people interpret and express emotions^{5,7,15}.

Improvisation promotes the acceptance of self and others and not judgement

The promotion of acceptance of oneself and others and not judgement was found to be a theme across 22 papers (69%)^{1,5,7-10,12,13,15-19,21,22,24,25,27-30,32} (which were not formally assessed due to the various disciplines of the research). This theme includes empowerment, choice and control, non-judgmental participation, and acceptance of being autistic and of other people (including autistic individuals), and their needs and interests. Interventions such as specifically improv have been empowering^{10,20}. Using an unpressurized approach may embolden the participants to be active^{25,29}, for example, through choice and control, and the use of non-judgmental participation, acceptance^{1,10,15,25} and allowing any form of

involvement^{19,25,27,30,32}. Non-judgmental involvement meant that people's ideas were not rejected^{25,29}. In Fein⁵, autistic differences were accepted and supported as an asset in live-action role-playing and were not stigmatised (e.g. their role-playing mirrored their lived experience).

Although initial anxiety occurred, after creating and meeting accurate expectations by notifying the autistic child of the plan and setting the parameters of the events to follow (that were abided), it was possible for the participants to thrive^{1,24}. However, in Davies¹⁹, the children were often unaware of their participation beforehand, or what it would entail, thus increasing worry and lack of engagement. The interventions required a supportive environment^{5,7,15,16,19} and met the needs, at least in part, of the participants¹.

During the sessions, people forgot the outside world and the usual external judgments that came, for instance, from parents and teachers who were noted as underestimating their child's or pupil's capabilities^{16,25}, due to both neurotypical and autistic people displaying their more peculiar personality⁸. By having no right or wrong, the participants were free⁸ and eager to join in with activities within the interventions^{1,13,16,30}. Accepting one's differences seemed to build self- and autistic identity (e.g., autistic culture⁵), which formed expressivity and amalgamation of the group's voice. The participants' integration into the session included using their preference for objects²⁸, which progressively led to social connections and affection²⁷.

People's enjoyment and the possible relaxing nature of theatrical improvisation led to engagement with interventions^{10,17}. Some autistic people thoroughly enjoyed improvising plays¹⁸. Conversely, it should be noted, however, that not all autistic people will be suited to acting¹⁹.

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Improvisation promotes personal development and emotional well-being

Lastly, theatrical improvisation appears to promote personal development and emotional well-being (these were not all measured, but rather informal impressions). In 20 papers (63%), participants’ personal development, enjoyment, or gains in well-being can, or does, improve from the intervention^{4-7,10-13,15-17,19-22,25,26,29,31,32}. An intervention was described to foster self-management skills in the autistic people by facilitating their ability to go beyond their usual boundaries¹⁶. Participants’ personal development, self-esteem, control, and confidence improved with better communication^{6,7,10,16,22}, which may lead to reduced inhibition and self-judgement¹⁹. Less self-consciousness was stated as reducing anxiety and stress while increasing spontaneity more broadly^{16,20}. With all aspects of any given moment being accepted during an intervention, participants were better able to have a positive mentality¹⁰ and harness their autistic identity for mutual support and sharing coping strategies⁵. It was suggested that theatrical improvisation can be used as an outlet to alleviate stress and increase social interactions (similar to neurotypicals¹²). Social anxiety may lessen with mastery of social skills¹⁴.

The use of interventions using theatrical improvisation appeared to support better well-being, possibly helping to develop coping skills, release negative self-talk¹⁷, and improve self-control²². Taking risks, de-stressing, gains in motivation, and improved self-esteem were the benefits of theatrical improvisation¹⁰. Likewise, participants were calmer after the intervention¹³ and increasingly less distressed during the intervention³¹. Similarly, theatrical improvisation may reduce anxiety and self-consciousness, form opportunities to invest in each other^{5,20}, and lead to less depression⁹. Two studies reported significantly decreased anxiety^{7,11}.

Coping occurs by increasing self-control, calmness, and building strategies for ambiguous situations^{6,19,22}. Furthermore, voicing issues and negative role-playing situations seemed to help^{5,6,13,22}, and some interventions normalised the feeling of having difficulties in meeting new people^{10,22}. People learned from unsuccessful moments, with failure being important, as taking risks seemed to defuse anxiety and stress^{10,16,26,29}.

Discussion

Key findings

This review set out to explore how theatrical improvisation has been, or is currently, used with autistic people and what has been its impact. One of the key findings of this review was the lack of research in this area. Most papers that have specifically focused on theatrical improvisation were primarily opinion pieces or descriptive in nature (e.g., Alana & Ansaldo, 2018). Those that included an evaluative element tended to include theatrical improvisation as an element of a wider intervention or program (e.g., Socio-Dramatic Affective-Relational Intervention; Lerner & Levine, 2007). This means that separating the impact and role of theatrical improvisation specifically is not possible (Research Questions 1 and 3).

Studies that evaluated an intervention or program which included an element of theatrical improvisation had methodological limitations (Research Questions 1, 2, and 3). Overall, some studies used very small samples, some of which were by design, and there was a lack of detail provided about participants. Similarly, there were limitations in other ways, such as gender bias (lack of females and non-binary autistic individuals). In addition, the predominant use of children limits understanding for autistic people, as generalisation is not possible in an adult population. One reviewed paper, Trudel & Nadig (2019), helps with generalisation in part, yet is limited by a small sample. Regarding the certainty of whether

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theatrical improvisation itself is related to changes, there were only three papers including comparison groups. More studies are required before a systematic review of the literature is useful.

This review has limitations in addition to those within the papers. First, only studies in English could be synthesised. Second, the exclusion of therapy restricted the potential inclusion of papers that used the term, which disabled the synthesis of all papers on certain interventions (i.e., SENSE Theatre). Similarly, some papers that should have used theatrical improvisation based on other reports of the same intervention do not mention its use (i.e., SDARI). Third, there is friction within the review regarding the choice to include texts on both theatrical improvisation as an art and as an intervention, especially with more literature on theatrical improvisation as an intervention. Even so, the flaws of this approach are outweighed by the gains in scoping the literature for a broad understanding of this under-researched topic.

Despite the limitations of the studies and the review itself, a number of interesting and potentially important findings have emerged. The discussion will focus on autistic personal development and autistic skills across both theatrical improvisation as an art and intervention. These will be discussed in alignment with the neurodiversity paradigm, which influence the stated foci that has been deemed important. In any case, the qualitative themes were spread across papers, including those focused on remediation and liberation, or as an intervention or art. This is noteworthy due to the possibility to interpret that theatrical improvisation may hold these benefits regardless of how it is implemented.

Importantly, the community stakeholders agreed with the findings of this review, commenting on their experiences of these topics in relation to improvising or being creative

in their life, gaining a sense of belonging, and offering possible reasons that the findings may not fit all autistic people.

Autistic personal development

Inter-individual and intra-individual heterogeneity are important to state, as many skills or abilities could be experienced more diversely than non-autistic people. For example, there can be substantial diversity in communication and imagination abilities among autistic people, and diversity in these abilities within a given individual (e.g., as a reaction or response to the day, or day-to-day fluctuations in mood, needs, or situational context).

Buntinx (2013) found that people with disabilities may have personal affordances that enable access to daily living activities or tasks. Autistic people may have differences that they find impairing, but this may not always be the case. They could have their own affordances that assist them - sometimes they could fail (potentially to systemic barriers, e.g., reduced usual affordance due to being overwhelmed by the day's environment and requirements, as per Murray et al.'s (2005) Theory of Monotropism). As Buntinx (2013) suggests, the opposite of disability is not positive personal functioning, and positioning support within disability is counterproductive (i.e., the opposite of disability is not a singular ability or a societal norm of abilities). Therefore, a strengths-based approach, whereby people set personal goals and use their strengths has merit; accordingly, this means addressing the person and not the 'disability' (i.e., contextualising the needs and goals; Urbanowicz et al., 2019). One key component is quality of life and well-being (Buntinx, 2013), the findings of which indicate that theatrical improvisation may have value (i.e., personal development, as per Schalock et al., 2002).

Theatrical improvisation appeared to promote personal development, confidence, and well-being (Research Question 4). This connects to the idea of Perkis et al. (2019), who

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discuss how mindfulness may benefit autistic people. In accordance with Kabat-Zinn’s (2013) definition of mindfulness, theatrical improvisation matches, because both focus on awareness through purposefully paying attention and being in the present moment without judgement. This review found that the possible valuable outcomes of theatrical improvisation may occur through developed coping skills and strategies (e.g., releasing negative self-talk, which may lead to improved well-being and self-esteem). In general, cognitive strategies can be used for better self-management (Unsworth & Mason, 2012); this could include constructive thinking patterns and mental rehearsal, as found in the review. In addition, theatrical improvisation may help form and invest in social connections (e.g., building new friendships noted in the review; Alana & Ansaldo, 2018) and communication (i.e. as suggested in the review, leading to better personal development, self-esteem, and self-confidence, which seems to enable a decrease in self-judgment, Davies, 2004). As such, it could help with being less self-conscious and being inhibited. Within the included papers, by being less self-conscious, autistic people may increase their self-control and calmness (Davies, 2004; Guli, Semrud-Clikeman, et al., 2013; Guli et al., 2008). This connects to Bermant (2013), who suggests that theatrical improvisation exercises the group mind, meaning that the individual is less prominent than the collective whole pursuing a goal (i.e., group flow is sought). This mutual obligation to one and another supports people to be less inhibited and reduces their self-judgments, as they must focus on the ensemble (or others) over themselves. As suggested in this review, this may lead to a reduction in social anxiety and depression (Müller et al., 2008; Lerner & Levine, 2007). Furthermore, taking risks may reduce anxiety and stress by using failure as opportunistic learning (e.g., a positive framing strategy and a form of social rehearsal). Likewise, role-playing and voicing issues may provide assistance to autistic people’s lives.

Empowerment of the othered bodies, such as autistic people, is an important endeavour (Alkhalidi, 2019; Botha et al., 2020; Cage et al., 2018b; Milton, 2012). Theatrical improvisation, at least in part, seems to have managed this. By reducing the pressure of everyday life and/or being correct, autistic people may be more able to participate actively. The two enabling factors are choice and non-judgmental approach. Providing choice includes participation in the intervention as a presented choice, as not all people inclusive of autistic people like theatrical improvisation or drama. A non-judgmental approach (e.g., not being or feeling rejected) is fundamentally about acceptance, where there is no right or wrong in the theatrical improvisation or the intervention; there is no rejection of their ideas (or the person). In addition, it can be perceived in the reviewed literature that the reduction of the stigmatisation (as defined by Goffman, 1963) is through demonstrable similarities; in other words, instead of polarising autistic people for their differences, theatrical improvisation presents people as similar ‘oddballs’ instead. This may aid autistic people to momentarily forget past external judgements. This further includes normalising autistic people’s feelings of worry while meeting new people, which supports building positive self-identities and connecting with others (including non-autistic peers). They can reach beyond their previous boundaries and beyond the external world’s (including their teacher or family’s) restrictive expectations. As suggested in the review, being accepted for who they are can lead to a positive mentality, as reflected in Cage et al. (2018a). It is a safe, positive, and supportive environment that people need, which includes helping each other. Therefore, theatrical improvisation might help manage the social world and spontaneity of life (McDonald, 1979). It is possible that this is best practiced through relevant improvisational training and in the appropriate environment. As Attias (2020) indicated, art can support expression and self-advocacy. Theatrical improvisation might offer life skills from self-management and provide a better future for autistic people with increased well-being and reduced anxiety.

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Autistic skills and abilities (play, social and communication skills)

The outcomes highlighted the skills that autistic people are *not meant to have* courtesy of their diagnosis (research question 4). However, they can be elicited or exist naturally if the right environment is provided (i.e., attitudinally and physically). Therefore, there is an important underlying context to understand when acknowledging the autistic people’s skill development.

Make belief was achieved in the included papers. Play is clearly achievable, potentially because they are allowed to play or develop skills. Autistic creativity has previously been depicted through deficit terminology (Craig & Baron-Cohen, 1999; Turner, 1999). Research usually suggests a lack of creating the ‘impossible’ or not having an imaginative presentation in creativity (Scott & Baron-Cohen, 1996; Low et al., 2009) and a preference for reality-based creativity (Craig & Baron-Cohen, 1999). However, according to the review, their make-belief may differ from neurotypicals and not as a deficit (Roth, 2020). Regardless of the conceptualisation of autistic people, some of the included papers found developments in creativity and imagination, and that autistic people improved their play, pretend, and make-belief skills (research question 4).

Most studies have focused on social and communication skills (Research Question 4). This focus was potentially predominant because most of the included texts focused on remediation. The reviewed texts provide mixed evidence that theatrical improvisation may lead to the development of social and communication skills. If social skills developed, it seemed to require being accepted, getting to know others, being within the in-group (including non-autistic peers, e.g., minimal group effect; Carr, 2003), being in a safe, positive environment, and increased social cognition (via communication reciprocity), which could be found without it being a theatre or improv-specific intervention. Nevertheless, the way in

which autistic people socialise may not be as neurotypical people socialise and communicate in life (e.g., Casartelli et al., 2020; Crompton et al., 2020; Idriss, 2020). In the reviewed papers, communication skills developed, which would be expected for interventions that are reliant on effective communication as developments occur for their neurotypical counterparts (Bernstein, 2014; Boesen et al., 2009; Engelberts, 2004; Krueger et al., 2017; Morse et al., 2018; Watson, 2011). This suggests that these outcomes would possibly be found regardless of whether the papers were on an intervention or art. In any case, a comparison of communication development between autistic and non-autistic participants is beyond the scope of this review. Nonetheless, autistic people seem to similarly develop as per past literature, which may be due to theatrical improvisation or interventions using improvisation.

The included papers with outcomes on empathy and emotions showed improvements (Research Question 4). It is unclear whether differences within this matter are accurate for autistic people (e.g., Gillespie-Lynch et al., 2017; Harrison et al., 2022), i.e., measures need to be constructed from the autistic people's perspective to ensure that it measures the *autistic* construct (Harrison et al., 2020). Theatrical improvisation seems to support developments in understanding and employing empathy and emotions, yet this may promote negative discourse and not a realistic perspective of autistic reality (e.g., Bagatell, 2007; Rieffe et al., 2021; McKenzie et al., 2021; Woods, 2017; Woods et al., 2019).

Future Directions for Research

The use of theatrical improvisation across these papers is highly diverse from play to playback theatre. Therefore, in attempting to discover the use of theatrical improvisation in regard to liberation or as an intervention, it is not currently possible to know its exact value for autistic people beyond the broad overview from this current review. More research is

generally required on theatrical improvisation for liberation. In addition, reports of its use and how it has been embedded in interventions could be perceived as vague. Studies need to assess its efficacy and effectiveness for autistic people to ascertain the benefits and whether this operates the same within an intervention using improvisation. To assist in understanding the functionality of theatrical improvisation, a comparison group is needed, for instance, text-based theatre compared to improvisational theatre. Furthermore, to determine what aspects of the interventions work, it will be important to clarify their validity in future evaluative empirical research. These must be specifically used and stated as theatrical improvisation (or improv comedy, if specifically this form). Likewise, by dissecting the interventions, we can understand the specific functions of different components, for example, by querying what laughter does and how gelotophobia impacts participants. Theatrical improvisation may support autistic people in personal development and improve their wellbeing. Further research is required to evaluate this potential impact (e.g., anxiety, self-management, and social masking). More generally, of interest could be whether improvisers believe mindfulness is a key aspect of their practice, and if so, whether it is applied to autistic people. Finally, autistic skills in cognitive flexibility seem possible through the implicit requirements of improvisation and could hold value for autistic people.

Conclusion

There is a clear need for further research in this area. Several articles reviewed identified a potential need for the acceptance of the entire person and their needs, including their cognitive style; thus, autistic people can be free to be themselves. They can reduce their inhibition and feel liberated from the social burden of a neurotypical world. Theatrical improvisation can be empowered in this manner and can be an equaliser for neurotypical and

autistic participants. Increasing autistic people's coping, self-management skills, and enabling failure and risk may help with anxiety and stress and provide a better quality of life.

A.2. Keates, N. & Beadle-Brown, J. (2022). The benefits of participating in improvisational comedy: a global confirmatory survey study. Comedy Studies, 13(2), 161-174, <https://doi.org/10.1080/2040610X.2022.2091719> (Chapter 3)

Introduction

Improv comedy is a small subset of theatrical improvisation that has groups of people perform live scenes and songs, which often are through premeditated or spontaneously created games, and may focus on story-creation or producing comedic sketches. Previous research has shown benefits of improvisation and (at times, more specifically) improv in four key areas that are common in past research and may be able to be found: positive regard, community, social and communication skills, and relaxation and mindfulness. Although there is availability for other themes to be noted, these appear to be the most discussed.

Positivity may come from unconditional positive regard (Bermant 2013), which creates opportunity for improv to add value to the improvisers' lives (those engaged in participating in improv). Studies indicate when engaging in improv, people are being accepted, they must suspend their judgement (DeMichele 2015), work well together (DeBettignies and Goldstein 2019; Frost and Yarrow 2007, 4) and they form friendships (Morse et al. 2018; Yamamoto 2020) that lead to a sense of belonging to a community (Morse et al. 2018; Quinn 2007). This can be broadened to being non-judgmental to achieve improv onstage, improvisers accept themselves and others through positive affect and their creativity comes out of collaboration (or accepting each other's ideas) with one and another (Bega et al. 2017; Sawyer 2015; Yamamoto 2020).

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On-stage, or in a class or rehearsal, improvisers must discover, in-the-moment (Fortier 2010, 50), what will happen; Sawyer (1999) terms this as ‘emergence’. Furthermore, retrospective meaning making (Sawyer and DeZutter 2009) occurs within emergence, as the performers gradually configure the reality (i.e., the scene) and the understanding of what has taken place after it occurs. Improv can help build social and communication skills (Bernstein 2014; Boesen et al. 2009; Engelberts 2004; Krueger, Murphy and Bink 2017; Morse et al. 2018) aiding people to become more attentive and actively listen (Steitzer 2011).

The skills of social and communication can offer people the ability to notice more and be mindful to the moment (Bermant 2013). Improv is about reactions and having awareness of the present (Drinko 2013, 25-28; Keates 2017, 7), and of what has been, and consequently will lead to what will be (Johnstone 1989, 47), which are all aspects of mindfulness (Gethin 2011; Nilsson and Kazemi 2016).

Previous research conducted into improvisation has spanned decades. Yet, the value of participating in theatre-based improvisation is still mostly unknown. Practices of theatrical improvisation, or improv comedy, have been used in many fields, including education (Lobman 2005), neuroscience (Beaty 2015), businesses and organizations (Vera and Crossan 2004). However, there remain gaps in research on improv. It could be suggested that ‘organizational improvisation’ (a field of practice and research that applies improv techniques to corporate or organizational settings) has dominated improvisation studies (Gao et al. 2015; Hadida, Tarvainen and Rose 2015). Therefore, research needs to expand to studies investigating people engaged in its performance instead of its applied practice.

Research on improv is limited. Therefore, this study aims to empirically investigate what the benefits agents (improvisers) experience and if these match previous research; this study is the first to analyse improvisational theatre and comedy (henceforth, improv will be used) and its benefits dis/confirming prior research of the four main ‘domains’ (from past

broader improvisation studies) and for the global population of improvisers. It seeks to explore the perceptions and experiences of those who are using improv in practice and to compare these to the improvisational practice described in the existing literature. There is currently no existing tool for exploring these issues and so, in addition, this study will also develop and test a tool for measuring perceptions and experiences related to improv.

Specifically, it will investigate:

- (1) The reliability and validity of the specially designed measure.
- (2) Differences in perceptions and experiences by demographic characteristics such as gender, disability (e.g., autism, ADHD, long term health conditions, etc.), ethnicity and geographic location.
- (3) The benefits of improv and whether the findings are consistent with the past research for a global population of improvisers (improv) (dis/confirming past research).

Materials and methods

Participants

A total of 195 respondents were recruited online through social media from around the world; 45% of respondents lived in North America, 35% in Europe and the rest in Oceania (7%; otherwise referred to as the continent of Australia), Asia (6%), and South America (6%). 128 respondents were able to complete the survey; five people did not meet the inclusion criteria, and sixty-two people did not complete the survey, potentially because of a language barrier. The respondents' mean age was 41.52 years (range: 18-74; SD = 12.11). The binary gender split was close to equal, with 52% males and 45% females. 2% of the respondents identified as non-binary. Most of the respondents were non-disabled (87%) with 9% self-identifying as disabled. Most people were Caucasian (80%), and the rest of the

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respondents were Hispanic or Latino (7%), Black or African American (3%), Asian (6%) and ‘other’ (3%). Over half of the respondents had at least a bachelor’s degree, with 40% having completed a master’s degree and 7% a doctorate. The respondents had been improvising for an average of 9.36 years (range: 1-47; Q1: 1-3, Q2: 4-5, Q3: 6-14, Q4: 14 and over).

Measures

The [Surname] Improv Comedy Survey ([S]ICS) was constructed based on research literature on improvisation. Through piloting the questions with 12 participants, the survey gained face validity. Content validity was gained by asking three academic experts with knowledge of the field to assess the survey. The conclusion was that the survey functioned as designed and was relevant and accurate to the constructs being questioned.

The survey asked 31 questions of which 26 questions were about the four possible domains of interest. Further to this, there was a question measuring trustworthiness of others to help provide clarity about how often the respondents felt trust in their scene partner and its context (e.g., being a member of a cast or being a guest in a performance). Respondents rated themselves using 7-point or 10-point scale (dependent on the designed purpose of the question), for example, from 1 (‘Strongly Disagree’) to 7 (‘Strongly Agree’). The survey contained other qualitative components presented in Keates & Beadle-Brown (under review).

An exploratory factor analysis and confirmatory factor analysis were conducted on the data to determine the fit of the questions to their proposed domains. This resulted in nine questions remaining, which included one for positivity (improv added value to my life), one question per social and communication skills, two questions on community, and two questions on relaxation. This removed all questions on mindfulness within improv. All four domains showed high internal consistency scores in the sample (N = 128) (Cronbach’s alpha:

added value to my life (positivity): .91; social and communication skills: .90; community: .82; relaxation: .87).

Procedure

After gaining ethical approval from the Tizard Centre's Ethics Committee (19th March 2019), an online survey was fielded over a 5-months period in the summer of 2019 using Qualtrics. After being notified about the survey through online social media platforms, participants reviewed the survey's information and consent page and consented via opting-in to complete the survey. Participants answered a series of 31 open or closed questions related to their improv experiences (positivity, community, social and communication skills, and relaxation), including in-depth demographic information (e.g., gender, place of residence, and years engaging in improv).

Data analysis

The statistical analyses were performed in the Statistical Package for the Social Sciences (SPSS) software, version 25. Descriptive statistics (Frequencies and Crosstabs) was used to identify whether participants confirmed the benefits of participating in improv or not (research question 3). Non-parametric statistics evaluated effects of demographic data and other comparisons of the domains of interest (and other exploratory tests; research question 2). The Mann-Whitney-U (used for two independent variables) or Kruskal-Wallis test statistic (used for more than two independent variables) examined perceived developments or changes by the participants due to improv with Mann-Whitney post-hoc tests where required. Due to some tests performing multiple comparisons, the use of a Holm's corrections was applied, as this was deemed to gain power over the Bonferroni method (Haynes 2013).

Results

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Context of improv for the respondents

Characteristics of their improv

The spread of years in improv is predominantly towards the lower end (as presented by 76% of respondents having participated for under 14 years) (31% of improvisers had been engaging in improv for up to three years based on quartiles of all respondents, 20% between three and five years, 25% between five and fourteen years, and 24% over fourteen years). Only seven respondents did not provide this information.

Most respondents engage in improv twice a week (31%). Only a few of the people would participate in improv more than four times a week (collectively 12%). Most people rehearse improv (31%) and perform (29%). Teaching classes (21%) and taking classes (15%) were smaller percentages of respondents’ main method of engaging in improv. Only a few respondents mostly produced improv events (5%).

When asked about the level of trust the respondent had in their scene partner, most respondents (77%) stated they trusted their partner most of the time based on the qualities they themselves provided (see Keates and Beadle-Brown, under review). Conversely, only 7 respondents stated never or sometimes trusting their scene partner.

Impact of participation in improv

Improv has added value to most people’s lives (98%, see table 1). Furthermore, most people felt that improv provided improvements to their socialisation (76%). Likewise, most people agreed that it improved their communication (86%). Similarly, there appears to be a sense of community and kinship in improv, as most respondents felt they enjoyed the company of others (91%), and they wanted the same thing (77%). For the last proposed domain, the median score of relaxation when being a member of the group was 8. Therefore, most people (53%) felt that they were relaxed in their own group 80% of the time or more.

The remaining respondents (47%) said that they were relaxed in their own group 70% of the time or less. For not being a member of the group, most people felt relaxed 70% of the time or more (median score 7) (56%), and the remaining 44% felt relaxed 60% of the time or less. Most people felt relaxed more often than not (60% of the time and above; 83% and 67% for in their own group and being a non-member, respectively). However, it is important to note that the questions about mindfulness did not correlate and has not been analysed any further.

[Table 1 near here.]

Relationships and associations between demographic characteristics and domains

Gender, ethnicity, and continents

Table 2 below presents the median ratings (with the minimum and maximum ratings) for each domain for the perceived impact of improv and for trustworthiness by gender, ethnicity, and geographic location (continent). For gender, there were only 3 people who had identified as non-binary and so statistical analysis compared only male and female respondents. There was no statistically significant result for gender, ethnicity, or any differences between the three geographic locations on any of the impact domains or the trustworthiness rating.

[Table 2 near here.]

Characteristic of their Improv

Table 3 presents median scores (with the minimum and maximum ratings) for each domain for the perceived impact of improv and for trustworthiness, according to how the respondents mainly participated in improv (activity). Trustworthiness was the only

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statistically significant result. Those that performed had a higher mean rank score (31.39 and 34.53, respectively) than those that took classes and taught (21.03 and 28.40, respectively).

Using a Mann-Whitney U post-hoc test, the results found were statistically significant and the difference between the activities was a small effect ($r = -.44$ and $-.26$, respectively). A Holm’s Correction suggests only the result for performing compared to taking classes ($p = 0.01$) was still a significant result.

[Table 3 near here.]

Relaxations compared to ratings of scene partners’ trustworthiness (and vice versa)

Table 4 illustrates trust as a significant result for socialisation, communication, community (both enjoying others and wanting the same) and relaxation (both within a company and as a guest). After a Holm’s Correction, enjoying others ($p = 0.03$) was still a significant result (most of the time or always mean rank = 61.71, half of the time mean rank = 49.86). Likewise, a Holm’s correction of comparing most of the time or always with sometimes or never trusting your scene partner suggests that socialisation (‘most’ mean rank = 53.50, ‘sometimes’ mean rank = 31.43, $p = 0.03$), enjoying others (‘most’ mean rank = 52.83, ‘sometimes’ mean rank = 40.64, $p = 0.03$), wanting the same (‘most’ mean rank = 54.01, ‘sometimes’ mean rank = 24.50, $p = 0.00$) and relaxing as a company member (‘most’ mean rank = 53.56, ‘sometimes’ mean rank = 30.57, $p = 0.01$) are still significant. All effect sizes were small. Lastly, there was no significant differences between those that rated sometimes and those responding with half of the time they trusted their scene partner.

[Table 4 near here.]

It is possible that trust leads to increased relaxation, as well as relaxation invoking trust within the improvisers. The respondents appear to have increased levels of trust when they are more relaxed both in a company and as a guest. The Mann-Whitney U-value was found to be statistically significant $Z = -2.58$, $p < 0.05$, and the difference between the being relaxed 50% of the time or less versus 60% of the time or more was small ($r = -.23$) for being a guest. Likewise, respondents within a company were statistically significant $Z = -2.20$, $p < 0.05$, and the difference was small ($r = -.20$).

Discussion

Key findings

This study sought to find improvisers' perceptions and experiences from around the world and map these to the practice described in the existing literature. Previous research has indicated that improv should add value to people's lives, provide a sense of community or belonging, develop their social and communication skills, and help with feeling relaxed (Bega et al. 2017; Bermant 2013; Engelberts 2004; Lobman 2005; Steitzer 2011). There are a few key findings to this study. Nearly all respondents agreed that improv added value to their life, over three quarters responded that they developed social skills, nearly 90% developed communication skills, over 90% enjoyed the company of other improvisers, and nearly 80% felt they wanted the same as others in their improv (research question 3). 83% of respondents felt relaxed more often than not in their own group and 67% of respondents were relaxed being a non-member or guest in a group. 77% of respondents trust their scene partner more often than not. As per research question 1, it is important to note that the survey functions both reliably and validly in its final form after testing.

Notable considerations when discussing these results are that over a quarter of the respondents were new to improv (under 3 years), with people usually engaging in improv one

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or two times a week. A key finding is that there is no difference of respondents’ perceived impact of improv on the stated domains or trust between binary genders (research question 2, as with the following findings). Nor are there any differences between ethnicities or continent of residence.

Respondents’ practice has been found to be of significance. These correlational findings may help people better gain, such as understanding that performing improv increases the trustworthiness of their scene partners over predominantly taking classes or teaching. Respondents enjoy others more when they trusted their scene partner, which encourages establishing a dominating sense of trust (over half of the time). Additionally, trust helps with socialisation, enjoying others, wanting the same as other, and feeling relaxed within a company (comparatively to a lack of a sense of trust). Interestingly, gaining a sense of relaxation both within a company and as a guest leads to more trust in their scene partner.

The benefits of improv

Improv provided added value to people’s lives. Respondents had a positive regard for improv, which suggests that those still engaged in improv remained doing so because they liked or found pleasure in participating.

Improv provides unconditional positive regard (Bermant 2013), which could derive from the ‘Yes, and’ mentality (accept and build upon the moment, oneself, and each other’s ideas; Krueger, Murphy and Bink 2017). This leads to positive affect between people (Bega et al. 2017), which provides a good environment with the foundation of acceptance of oneself and others. Hafford-Letchfield (2013) found improv formed a positive climate, and it enables people to have positive experiences (Boesen et al. 2009). For example, improv had a beneficial influence for social change (accepting older people; Yamamoto 2020). This could be due to it lessening defensiveness, as people in agreement (accepting with an unconditional

positive regard) in turn leads to less self-conscious playing (Drinko 2013, 35-63). Being in a co-creative, open environment can lead to added value from mutual support. This built ability to work well together and spontaneously express oneself (i.e., social functioning) theoretically help people be successful (DeBettignies and Goldstein 2019). Therefore, it could be positivity and added value from improv originates from building self-concept (DeBettignies and Goldstein 2019; Schwenke et al. 2020), having a positive affect, and viewing and perceiving others with unconditional regard. It is common to hear improvisers suggest that ‘if everyone had a day of improv, especially our politicians, we would be a better world’ (Mills 2019).

A sense of community can be obtained from participating in improv activities. Spolin’s work was designed to build community (Steitzer 2011). Improv is meant to not only teach people to build community, but to form a social-communicative bond: group mind. This bond may solidify kinship and the enjoyment of each other’s company through the mutual, shared experiences. An improv group is of one mind and are a collection of individuals, which form a collective that is better than the sum of its parts (Quinn 2007).

These groups mix and connect as various inter-related and merging communities, to which people can associate and belong. As Raj (2016) signifies, there are numerous ways to view community; improv is more associated with community as identity (improviser) or occupation (or hobby in this case; engaging in improv). Trester (2012) views belonging to an improv community as member socialisation, which means being a member requires the correct social and illustrative knowledge (membership to the community is demonstrated by the existence of referential knowledge about improv, local practices, knowing other performers’ work, and having valuable, shared skills). All of which can be viewed on a macro- and micro-level (global to town). Improv communities may be described as aligned to a community of practice, because of their shared belief of the everyday improv praxis

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(Zaunbrecher 2012). Communities of practice are groups of people who share a passion on a topic and deepen their knowledge through ongoing interactions (Wenger, McDermott and Snyder 2002, 4). Therefore, a passion for engaging in discovery may inform daily living.

Nonetheless, wanting the same is more the shared and similar understanding, and joint sense of identity that may derive from the community of practice; therefore, they gain a sense of belonging through joining their in-group. It could be a provision from a local community (the locality including any distance willing to be travelled by the improvisers, e.g., in England, improvisers may travel from Nottingham to Birmingham as a local community of Midlands improvisers). Community could be globally and more specific; for example, Comedysportz has its own global improv community for those that play in this production, which in turn forms a bond, shared identity, and community of practice through similarities of those that understand what this production requires from the casts, and the approach to how they must improvise.

The development of communication skills can occur due to engaging in improv. The communication of improvisers demonstrates their skill at understanding human behaviour, culture, and relationships (Fortier 2010, 4). This implicit need is due to (dependent on style of improv) the need for absolute clarity. In improv, the need for communication between the characters and the improvisers leads to a ‘social art’ (original emphasis; Engelberts 2004). Performers in improv need good meta-communication through the aforementioned group mind to co-create with flow and cohesion. On-stage, improvisers are creating live with one and another and nothing is directly expressed about the theatrical construction being formed; therefore, they must play according to the meta-communication. This occurs in everyday adult life (Sawyer 1993), but is challenged when put onstage. As Al Wunder (2007) suggests, the difference between life and stage is only the condensed space and time.

Nonetheless, communication is implemented in improvisers' lives. Quinn (2007) suggests improvisers attempt to live and communicate using principles of improv. As communication is naturally improvisational, improvisers should be more practiced and effective. Improv improves communication, such as active listening and non-verbal communication (Bega et al. 2017; Krueger, Murphy and Bink 2017).

Social skills can develop due to engaging in improv. Engelberts (2004) sees improv as a social formative instrument more than general theatre, educating improvisers in social relations. However, Keith Johnstone believed that humans are herd animals, and the development of socialisation reduces creativity, so people are more homogenized into their tribe (a theoretical discussion in Drinko 2013, 64-91). Sawyer's (2014) review of eight sources suggests similarly that emphasizing socialisation over creative expression must be avoided because too much formal training produces conventionalization and rigidity in thinking (Sawyer 2011). Therefore, as improv is tribal or community-based, the homogenizing nature of the over-socialisation should reduce creativity. Nevertheless, Spolin (1999, 73) theorized that pleasure and excitement drive the social growth of the group that is essential for improvising. Although these may seem contrary, one needs to feel unrestricted and able to be creative and open to a given moment (the creative self), which Spolin suggests through a focus on pleasure and excitement (the creative collective). Therefore, to work together, the group individually must be able to 'work' (be creative). The need for people to come together to improvise is a social requirement; in Morse et al. (2018), the older participants had issues in obtaining social contact, but during improv they had a form of socialisation structured into their schedule. Hence, improv helps older people to widen their social circle (Yamamoto 2020). Thus, the social component of an improv group ('tribe') exists because they co-create through improvisation proffering shared experiences.

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Although less certain than other benefits, improv can be relaxing. However, it is unclear if improv can provide a sense of mindfulness within the global population. It could be those more inclined to engage in a mindfulness practice discover similarities rather than those practicing improv feeling more mindful themselves.

Relaxation can be integral to improv. It creates a relaxed and humorous atmosphere (Hatcher et al. 2019), so when people are not trying to be funny, they are bonding well and being their funniest (Halpern, Close and Johnson 1994, 13, my emphasis). Therefore, when people are connecting to the material and its references, they feel relaxed (Fortier 2010, 37). Improv ameliorates circumstances by enabling playfulness and increases relaxation (Lobman 2005). In addition, this comes from knowing there are no mistakes and from having a shared responsibility for the performance (Seppänen et al. 2019; Sherr and Oshima 2016). These may assist in the decompression effect whereby the performers focus on the creation and feel less pressure themselves (Weixian and Shuyu 2019). Hence, the best state for the brain to achieve creativity is relaxed (Hatcher et al. 2019), which is maintained through reaching a flow state (Drinko 2013, 35-63). Consequently, experienced improvisers are relaxed because they can accomplish scene work without leadership (Drinko 2013, 92-110).

Limitations

This study has limitations that must be noted in the interpretation of the findings. Adaptation and further renditions of the survey could improve its design. There were small samples of certain populations of respondents (non-binary; non-Caucasian people; and those from the global south; and only eleven self-identifying disabled improvisers). The complexity of the language used could have reduced the viability to complete the survey for those with English as an additional language. The restrictions of social media in some countries would have impacted on visibility of the survey for some populations too.

Future directions for research

Future research should develop the survey, as this was its first use. This article focuses on the confirmatory use of the measure to identify perceived benefits of improv; future reports on the qualitative components are needed. Additionally, future studies may choose to develop the measure and recruitment methods (e.g., accessing countries with restricted social media platforms, translating the measure, and accounting for respondents' language level). Similarly, larger samples of the under-represented populations must be included in future research.

Importantly, future research should support identifying the barriers of accessing improv for under-represented groups. Of interest is to find out specifically for whom these traits of improv work, such as neurodivergent people (e.g., autistic people, those with OCD, generalized anxiety disorder, or dyspraxia).

Conclusion

This paper set out to answer the perceptions and experiential variations between the demographic factors of respondents, the accuracy of past research for improvisers from around the world, and the reliability and validity of the presented measure. It was found that

most respondents agree to the presented domains (research question 3) and often trust their scene partner. Performing improv increases trust, trust increases the benefits of most of the domains, and feeling relaxed increases trust in the respondents with their scene partner. Additionally, the survey seems to function both reliably and validly (research question 1). However, there were no differences in represented groups of respondents on their experience of the benefits of improv (research question 2).

A.3. Keates, N. & Beadle-Brown, J. (TBC). Improviser's experience across neurotypes of participating in improv comedy. Advances in Autism. (Chapter 5)

Introduction

Improv comedy (henceforth, improv) is a small subset of theatrical improvisation. Agents of improv learn, rehearse, and perform spontaneously to create scenes, songs, or stories. They manage this through either premeditated or extemporaneously created games, or loose structures. For example, an improviser steps forward from the back of the stage to play out a quick scene based on an audience's suggestion (this type of game is called verbal wit). Using a similar layout, in the 'Armando', improvisers step out to improvise a series of sketch-like scenes. These are based on an invited guest's monologue from an audience's suggestion. Previous literature on this topic has confirmed experiences of theatrical improvisation (including improv) (Author and Author, 2022). These were added value to one's life; developments in social and communication skills; a sense of community; and a sense of relaxation. An interview with autistic comedians suggests that there is a valuable community of comedians (Brady et al., 2022). Farahar (2022) suggested that being a part of the (autistic) community improves well-being through increased positive self-identity. In general, performance leads to creative expression and self-advocacy for autistic people (Brady, 2022). Kim et al. (2015) found that inclusive theatre improved autistic children's

self-esteem, empathy, and socialisation with other people. Further identification of benefits specifically from improv for a variety of people has included improved well-being for breast cancer survivors (Asher et al., 2019), the feasibility of implementation and the appropriateness of improv for people with intellectual disabilities and mental ill-health (Fabian et al., 2022), and reduction of anxiety and depression symptomology (e.g., Felsman et al., 2019; Krueger et al., 2017).

There is a paucity of studies focused on autistic people and improv, with most studies conducted on children or adolescents (Author and Author, under review-a), calling for a need to investigate autistic adults' experiences of this phenomenon. Moreover, there are key considerations in order to gain a full understanding of the benefits of improv. First, autistic people may have engaged in this specific art form. Individuals may pursue improv as a profession or hobby. In addition, it may be helpful to account for the life experiences of being autistic that may alter the benefits experienced; this includes masking, which commonly occurs with negative consequences for autistic people (Cook et al., 2021). As Pearson & Rose (2021) state, masking can lead to autistic burnout. Furthermore, it is possible that within any form of improv practice, bad experiences may occur (as with any aspect of life). However, this might be more impactful for neurodivergent (a mind that diverges from the dominant societal 'normal', Walker, 2021), including autistic, people.

This means that understanding this phenomenon seems best by identifying experiential differences and similarities across neurotypes. Neurotypes refer to subgroups within the natural neurological diversity of the entire population (Walker, 2021). As Shah (2021) and colleagues have discussed in recent years, there are similarities as well as differences between populations. Consequently, a better understanding can be achieved by adopting this approach. Although it is possible that there would be no difference between

neurotypes, developing an understanding without assumption is crucial to better understand the gains from improv for neurodivergent and neurotypicals (NTs). For this reason, three categories of neurotypes could be valuable: autistic, neurodivergent yet not autistic (for ease, henceforth written ND), and NT.

This study explored the role and benefits of improv for autistic, ND, and NT people. Specifically, this study explored the following questions:

1. Have there been any benefits from participating in the improv? If so, what?
2. What factors of autistic lived experiences change because of improv, if any?

Methods

Participants

Twenty adults (10 autistic and 5 ND and NT) participated in the study. Through snowball sampling, recruitment occurred online via social media; local, national, and international autism organisations; support and social groups; and relevant autism mailing lists. The participants' ages ranged from 24 to 79 years old, with eight participants identifying as female, nine as male, and three as non-binary. 18 participants identified themselves as Caucasian, and two characterised themselves as mixed. 40% of participants resided in the UK, 40% in the USA, 10% in Canada, 5% in Australia, and 5% in New Zealand.

The demographic characteristics of the participants was collected through a questionnaire completed and emailed to the first author, or answered to the interviewer (e.g., gender identity, age, ethnicity, and prior improv experience). ND and NT participants were asked about their diagnoses/how they self-identify in cases without a formal diagnosis (in order to identify ND participants). Various, separate calls went out about all ND diagnoses.

Most neurodivergent participants responded to advertisements based on these calls for a specific diagnosis, i.e., dyslexia, ADHD. Although some autistic participants had other ND diagnoses or identities, they were assigned to the autistic group. Importantly, participants were only required to have engaged in a minimum of one improv course.

Procedure

This study was approved from [blinded] ethics committee in September 2020. The interviews were semi-structured to provide scope for discussing what the participants desired. Initially the questions in the interview schedule were reviewed by the project consultation group (of 21 autistic people) via text-based applications (i.e., emails). The interview schedule was piloted until the questions worked across all the neurotypes (16 people in total). The core questions were provided to all participants before the interview. The interviews lasted 45–120 minutes. Interviews were conducted by the researcher using Zoom at a convenient time.

Data analysis

The interviews were recorded verbatim and stored in Microsoft Stream on the University's secure online system. The data were initially analysed using Interpretative Phenomenological Analysis (IPA) to ascertain the lived experiences of participants. However, Qualitative Content Analysis (QCA) (Bengtsson, 2016) was necessary to understand all the specific benefits gained. Through this pragmatic framework, it was believed that nuanced comprehension of the phenomena could be achieved.

IPA is an ideographic process whereby the researcher independently codes each transcript through a 7-stage process (McCormack and Joseph, 2018). First, each interview was analysed separately (i.e., the idiographic process), transcribing each interview, noting initial thoughts in the margin, and expanding their thoughts in the other margin (steps 1 – 2).

They then identified the significant content, language, and concepts (Step 3). Next, they noted emerging themes for the transcript and highlighted exemplary quotes (creating an extensive audit trail) (Steps 4 and 5). Thereafter, they repeated the above steps for all the other transcripts. In step 6, the researcher used auditors (in this case, inter-raters) for a robust discussion of the themes. The researcher continued to develop themes during the report writing (Step 7). After all the transcripts were coded, convergent and divergent themes were compared to form the appropriate themes.

QCA is a method of analysing that profits from coding specific details from the participants. This process has four steps: (i) decontextualization, (ii) recontextualization, (iii) categorisation, and (iv) compilation. Decontextualization was applied via initial notes and thoughts about what participants were stating (in addition to the IPA), which was recontextualised by collectively understanding the benefits suggested in the interviews (into codes). Thereafter, the codes were categorised and compiled into themes and sub-themes.

All data were analysed using NVivo version 12 and Microsoft Excel® (Version 2111) to support the coding process. All participants' identifying information (including participants' names) was pseudonymised.

Interrater reliability was achieved by two impartial researchers (from different academic fields) coding 20% of the data to reduce the impact of researcher bias by collectively understanding the data. All researchers came to a complete agreement with all themes. Consideration of alternative interpretations shaped and developed themes through discussion.

Results

Lived experience (IPA).

The initial analysis sought the participants' lived experiences. In seeking the depth of their experiences, two key themes emerged: for all neurotypes, (i) 'life beyond improv', and for autistics (ii) the 'negative impact of the social world'. These themes identified key aspects of their lived experiences as improvisers embedded in the social world.

Life beyond improv (IPA).

'Life beyond improv' expounds on parts of life that create gains and how these can affect improv. Participants mentioned numerous aspects of life are impactful, including being around likeminded or the 'right' people, participants' maturation, development of self-knowledge, and Buddhism.

I'm [as an ADHD-er] possibly quite hard work for them [other autistic people] ... for some of them, sometimes. And in return, it's exhausting the amount I have to slow myself down. (Rachel, *autistic*)

I-I feel like a stronger connection to some of those cultures [Europe and Asia] more than I feel... to my culture. (Donald, *NT*)

Negative Impact of the Social World (IPA).

For autistic people, the neuro-normative social world has been negatively impactful, including leading to masking. For one participant, internalised ableism or self-stigma seemed to exist.

I think me doing drama has been difficult on other people because... drama is helping me, become more socially well adapted but, sometimes it's at the cost of other people's patience... there was some theatre going on... and people never really told me that, they, weren't, you know, down with, me pursuing [it]. (Bill, *autistic*)

Another participant hated the arts sector but felt more able within theatre (rather than science or mathematics). This extends beyond this sector to the broader social world.

It's the Arts, it's feral. ...And the Arts is actually quite a dodgy thing, and there's a side to me absolutely hates it. (Pat, *autistic*)

Some of the autistic participants experienced the need to mask and even accidentally do so after realising they should not have this obligation. Being autistic can be perceived as a fight within oneself related to fitting into the world.

It's still a process of... working out... when to, how to. I mean I'm quite adamant that I shouldn't have to [mask]. ... I don't see how we can get our lives lived, in any kind of positive way for ourselves if we're spending all of our times masking, for other people to feel comfortable... [or] accommodated. (Rachel, *autistic*)

Consequently, the improv had little impact on these factors. Improv can only be part of their system of being or an activity with which they engage. "Improv is not a panacea" (Del, *autistic*) and it can only be of value to some people at the right time.

Benefits of improv (QCA).

Five themes were identified regarding the benefits of improv from the data through QCA (see Table 1). It is important to note that mental health benefits were not found for NT participants (only other quality of life (QoL) and well-being gains existed).

[insert table 1 near here]

Theme 1: Creativity and Opportunities: The arts and the workplace.

This theme exemplifies the wide arena for improv to be transferable to performance, the arts, and other workplaces. Participants gained skills and comfort at performing including comedy.

It's also gotten me better at articulating premises, I would say. (Keith, *autistic*)

...the chance to perform which is out of- out of the ordinary for my life... and then also, I think, developing skills. (Alice, *NT*)

In addition, improv helped participants engage in other creative endeavours. Thus, the provision of creative development went beyond improv. Participants spoke on improv offering a toolkit of skills and mindset that can help other creative ventures.

...the improv come along. It's kind of focused me a bit I guess on that writing... (Michael, *ND*)

Other platforms external to creative-based employment were discussed, whereby the participants would apply their improv practice, such as academia, teaching, leadership, and sales. Some participants even applied the practice of improv with their clients, including clients' self-reflection.

I find it quite beneficial to be able to have a sort of back and forth ...being able to just keep a discussion going... adding to what they're saying. (Becky, *ND*)

...improv has entered my workplace. ...I'm able to use improv, techniques, or games, to help them, see some things about themselves [clients], gain more insight and awareness. (May, *ND*)

Theme 2: Acceptance, cognitive flexibility, and rolling with it.

This theme seems to be a key part of learning that can occur during improv training. Equanimity and creation were prominent aspects of people's experiences, yet this was not only within improv; some people were keen on this way of being more broadly (e.g., mindfulness, Buddhism), which may have occurred before improv. This aligns to applied improv for people's lives (i.e., the 'spirit' of improv for adventure or similar in everyday life), which is distinct from the onstage improv or the implemented techniques for creativity.

I'm pretty big into meditation... Always like striving for like equanimity ...improv helps that you're kind of rolling with whatever comes. (Donald, *NT*)

It's daily really [to apply improv principles in life]. I mean I do have it tattooed on my arm (shows). (Becky, *ND*)

Participants discussed benefitting from becoming more accepting and present in life (including with people and their ideas). Acceptance is a broad concept that can be applied in a variety of ways, which can occur on- and off-stage. In the applied sense, acceptance of the moments and people within life can be seen as building on the moment or with the people. The resultant impact seems to be due to cognitive flexibility.

And, to really generally try to accept, things that are happening in my life. 'Yes, And-ing' what's going on, with my relationships, my- and my work. (May, *ND*)

I think that it has helped me very much... be more flexible, and more able to... appreciate changes as they come up. And more willing to... accept things as they are. (Viola, *ND*)

Lastly, being able to go with the flow (e.g., letting go and trusting in the moment, continuing in the moment, working with whatever happens) and taking risks allowed people

to discover and have experiences. This included social contact by risking talking to a stranger or trying new food, such as with the 'spirit' of improv.

...when you're growing up with autism, you tend to become very set in your ways. ...I was definitely very picky with food when I was younger. ...I was on holiday, in, umm... Dubrovnik... [I needed] to 'Yes, and' this [food] or otherwise I'm going to starve. So, yeah, and then, low and behold, there were certain dishes there was like this is great... (Jack, *autistic*)

Probably actually taking this position with the theatre because we closed in March last year due to COVID and then we had a devastating flood in July which left our theatre inoperable ...you know, job security isn't really there right now.... Rolling with the punches. (Joan, *NT*)

Theme 3: Interpersonal, social and communication skills and human connection.

Gaining interpersonal, social and communication skills occurred for both non- and autistic participants. They mentioned learning and developing this area, exploring skills such as turn-taking for only autistic participants, and cognitive empathy for only NT improvisers.

...if you have something, that is, involved in connecting with other human beings, and you have a purpose to it and it's structured, as an autistic person, that makes it easier... (Jill, *autistic*)

It certainly I think makes you looser, and in what are often times ...very rigid formats of communication. (Keith, *autistic*)

The NT participants spoke about human connections and being human. This included developing an understanding of people, their views, and perspectives (i.e., appreciating or recognising that people have differing perspectives).

...in terms of why I do it and why I want other people to learn it is... to welcome each other back to humanity. (Gary, *NT*)

...being able to listen to those [people or their] stories and to understand their perspective on things is pretty important... (John, *NT*)

In addition to social and communication skills, it was found that improv can be directly applied to life. This feature was beyond what they initially expected to gain from participating in the improv.

...even something like, going to a shop and asking for like assistance and help. ...I now have this trick in my mind where I'm like, 'just pretend you're doing a scene.' (Jack, *autistic*)

Theme 4: Gains in Mental Health, Quality of Life, and Well-being.

Improv appears to offer its agents gains in mental health, QoL and well-being. First, mental health benefits were identified only for the two neurodivergent groups. Examples of mental health gains provided by participants included less depression, lower levels of anxiety or stress, gaining acceptance from others, and transforming emotions through embodiment and release.

And allows me to be more relaxed. ...when I was younger ...I had have a week or or two where I- where I was basically on an extended depression... Improvisation is allowed me to, to kind of break into that. (Del, *autistic*)

I think there's a mental health part of this. I think, the only place that I was safe from bullying, in a team, was in the improv circle. Um. Because my inappropriateness, was acceptable. (Jo, *autistic*)

In relation to QoL, participants reported that improv helps improve aspects of emotional well-being, including self-esteem and self-concept (Schalock et al., 2002). All improvisers experienced these and gained confidence, courage, and the ability to manage the unexpected.

[Improv] has really helped with my self-confidence, and self-esteem to find something that I'm really good at. (Susan, *autistic*)

I do end up energized after a show.... It's just a mood impact. (Elaine, *ND*)

Participants reported experiencing personal growth through a greater understanding and perception of themselves in a positive light. Therefore, they were afforded freedom to be their creative self (as per self-concept) and to make decisions (e.g., affirming their self-identity through the comparison of the ideal and actual self; Carr, 2003).

...the benefit would be, to have kind of creative freedom. ...which is not always present in everyday interactions, 'cause you always having to, monitor what you're saying... (Susan, *autistic*)

Improv appeared to be a vehicle for personal development through participants gaining self-control, increasing cognitive competence, and reducing the rigidity of thinking. Regarding cognitive competence, participants found improv to be similar to brain exercises (i.e., the games being a mental “workout,” Viola, *ND*), which improved their concentration and focus, working memory, and problem solving.

Self-control. That element of it... You never see it enough, you know... It's this big deal. (Pat, *autistic*)

But ever since doing improv, just the practice of just speaking and talking, just, ...not holding back on, on what I'm about to say. ...that's one key benefit. (Michael, *ND*)

With reference to well-being, all neurotype groups discussed elements of hedonistic well-being, which was a key aspect revolving around being happier or experiencing fun and joy. Often, participants suggested that they began improv because it was fun and found more benefits afterwards.

Initially I just started doing it because it seemed... um... effortless and fun (laughs). (Gary, *NT*)

Participants spoke about improv being life affirming, such as improv being their 'way of life', for example, "I can't do the learn, understand, remember, cross-reference thing, that most people do that they think is clever. I have to improvise all the time." (Pat, *autistic*). Another example is how they see the world as necessary to their life, such as "...it's become second nature because I've been doing it for so long." (Del, *autistic*). In addition, they may experience life affirmation and validation of their chosen activities or professions.

And yeah, it's wow what a life-life affirming moment that was [to hear improv helped their family]. (John, *NT*)

Theme 5: "I've gone full autistic" (and can learn why neurotypicals are like they are).

This theme explores various aspects that support and foster autistic people in improv. Improv may have helped them to be their autistic selves due to being accepted (and potentially where autistic communication is accepted). Improv seems to have utilised

participants' autistic strengths and provided opportunities for a more complete understanding of themselves, NTs, and the world. Moreover, improv has structures and rules that have been reported to be useful.

Because a lot of autism is you come up with ideas and, the, mental filter in your brain is like that's a bad idea ...improv is a lot of turning that particular filter off and then just doing the thing. (Charlie, *autistic*)

I think the benefits of actually kind of doing the improv, kind of, in a, in a formal sense is that it-it's, it kind of gives a structure to that, you know... (Jill, *autistic*)

In some cases, theatre has provided the opportunity to learn to be themselves (onstage). Participants said that some autistic participants developed into their full autistic self by admonishing the societal pressure for masking.

...we were, deliberately being very much ourselves, and not masking. ...This is actually the fact of allowing yourself to be autistic, on stage. (Rachel, *autistic*)

Discussion

This study sought to explore the experiences of improvisers across neurotypes (autistic; non-autistic yet neurodivergent; and neurotypical). Many of the key findings were across the three neurotype groupings used in this study, which include that improvisers experienced both personal and professional benefits and QoL gains (Theme 4) (research question 1). Neurodivergent (including autistic) improvisers gained mental health benefits, and autistic people spoke about being able to be themselves and better understand NTs. These did not differ across those with improv being their profession or as a hobby.

In addition, autistic experiences of improv included the acknowledgement that the NT world is problematic, and its impact is noticeable (negative impact of the social world (IPA]) (research question 2). Therefore, improv can only help to a certain degree. For example, masking was a longer process for some autistic people, so improv had no perceived effect upon this phenomenon. Similarly, for all neurotypes, there were other facets of their life other than improv that offered benefits.

Neurotypes.

Although the benefits found from improv are the same across neurotypes, there are nuances in the differences between the groups' experiences. For example, in social and communication skills (theme 3), NTs gain similarly to autistic people; however, as an example, the focus on turn-taking is more prominent for autistic improvisers.

The identities that a person holds may have different effects. As per these participants, an ADHD identity may be more prominent socially with autistic people (as per 'life beyond improv'), creating opportunity for social comparison. Such identities from within the in-group suggest that difference builds both self-knowledge (e.g., knowing to socialise with neurodivergent people to whom you would not be an incumbrance) and becoming an outsider within your identity (e.g., the prominence of one identity over another). This is similar to intersectional identities, where both can be 'othered' by the other identity (e.g., gender and sexuality and being autistic within one and another's community; Hillier et al., 2019). Nevertheless, the extent of these experiences for participants was not proposed to be othering but acknowledged as existent.

There has been an increase in the mental ill-health of neurodivergent people (Lai et al., 2019). NTs can have mental health issues (even if not prolonged), so there is likely a

plethora of unknown reasons for this not being spoken by these participants. There are two prospective reasons proposed: one is that the use of comedy may support coping without awareness, and the second is that mental ill-health may not be greatly felt. First, comedy use may be less perceptively connected to mental health issues. For example, the use of naturally or unconsciously implemented coping humour may reduce mental ill-health (Martin and Lefcourt, 1983; Newman and Stone, 1996), or these participants have not connected improv to past mental health experiences. Second, NTs may not feel the mental ill-health greatly. As per Pilgrim and Rogers (1999), mental ill-health could exist through secondary deviance ('deviant' behaviour from a felt stigmatised identity) that remain if helplessness is sustained. This could mean that NTs would have to experience less helplessness from their deviance (and mental health directly) for this to be true. In turn the neurodivergent (including autistic) participants have intersectional identities (e.g., non-binary) potentially leading to further labelling that 'others' them and sustains the depreciation of mental health.

Quality of life.

These findings seem to broadly align with QoL benefits as per Schalock et al.'s (2002) domains. Of the eight domains, this study fits well with seven domains. As mentioned above, the themes depicted the participants' experiences across four domains (personal development, self-determination, interpersonal relations, and emotional well-being) including such examples as rolling with the moment, and creative expressivity when considering the complete dataset. However, the data also fit social inclusion, rights, and material well-being.

First, participants gained rights through acceptance (Theme 2), providing mutual respect, dignity, and equality (to some extent). Material well-being could be interpreted from the data as participants having employment status through improv or using improv in their employment (Theme 1).

Chiefly, social inclusion is apparent through participants being accepted as part of an improv as a community of practice (Wenger, 2002). This would imply that their interactions are scaffolded; for example, networking in improv may include first seeing improvisers perform, or they play with them onstage before meeting them in ‘real-life’. Furthermore, there is the possibility of a central topic for initiating interactions, such as general improv, or specific past, present, or future events or scenes (i.e., as structure and shared practice). One finding of particular importance is acceptance, which is argued to be a core aspect of social inclusion (Robertson, 2010). Autistic identity can be a protective factor for self-esteem and mental health (Cooper et al., 2017). Therefore, within improv, this may occur through the acceptance of their identity. Brady (2022) demonstrated how performance, in general, may lead to better self-advocacy and creative expression. In the same way, the reported findings identified the potential for self-concept within personal growth, affirmation, and emotional well-being. Self-determination akin to Causal Agency Theory (Deci and Ryan, 2004, in Shogren, 2015) suggests that acceptance is key and focusing on strength-based approach within ‘interventions’ would help form social inclusion. For autistic people, leveraging strengths and meeting potential executive functioning, such as increased cognitive flexibility, may ‘better’ support self-determination (Shogren et al., 2021).

Well-being.

Autistic people may gain both hedonistic and eudaimonic well-being through improv. These findings on why improv has some form of personal importance reiterate how improv is fun and provides happiness (hedonistic well-being; Deci and Ryan, 2008). Yet, the fun stated (often as a reason to begin improv) is not the only benefit. They connect with people, collaborate, develop within the community, and give to others through co-creative, social

emergent humour and/or theatrical experiences (eudaimonic well-being); therefore, individuals can experience a meaningful life (Baumeister et al. 2013).

According to Ng and Fisher (2013), a multilevel approach to well-being that accounts for all aspects of life would be beneficial. This would entail environmental factors, such as culture (perhaps autistic culture; e.g., Dekker, 1999; Gokh et al., 2018), and structural and systemic barriers. With this in mind, improv will not be enough for (autistic) people in a life with other difficulties, such as discrimination internal or external to improv (prejudice) and a stigmatised identity (self- and social/public-stigma) (ignorance by knowledge, prejudice by attitude, and discrimination by behaviour; Thornicroft et al., 2007).

Complicated Life.

Living in a world predominantly NT can lead to issues (professionally and personally), e.g., the actor's network being "prissy" (as stated by a participant) and needing to mask is devoid of their actual self-concept. For personal life, a complication could occur through the experience of unmasking and the obstacles of trying such after many years of unconsciously doing so. Masking occurs from the political power structures of oppression, creating a stigmatised identity (Tyler, 2020), and positioning autistic individuals within a social system in which the interaction-based consequence (i.e., masking and passing) occurs; therefore, breaking from these can be a difficult process. Nonetheless, the duality of masking and theatre may not be an issue. Some participants experienced a release from being onstage as themselves.

Nevertheless, the theatre industry (amateur and professional) may have practices that 'other' autistic people. It is not that negative experiences in life are definite, because in everyday life, some autistic people may not feel the impact like others. However, in cultural

and creative industries, these practices may lead to systems that are not conducive to autistic theatre professionals or students.

In any case, autistic socialisation and dyads are often discussed as easier or better than within the neuro-normative social world (Crompton et al., 2020). The affirmation experienced from an autistic space can be a revelation for autistic people (for a description of Autscape, see Buckle, 2020). In contrast, it can create such an adverse difference upon exiting back into the neuro-normative social world (on the differences, struggles and ease between social worlds, see Idriss, 2021). This positions improv similar to an autistic space, at least for some as per the findings. Regardless of the neurotype, maturation was a factor to consider; as one grows older, it becomes easier to understand oneself and the way of the world.

Limitations

The diversity of ethnicity and the Anglo-centric nature of the research meant that participants needed to be fluent in English, which limits to whom these data represent. In the same way, participants needed access to the internet.

Future Directions

Further research should identify when certain populations of people can find value in any activity or social engagement; this is based on the current insight that the right time for some people is varied. In the same way, an action research study can identify what works and does not work in an 'intervention' or course on improv. Of interest would be to understand the experience of autistic adults new to learning improv, including any benefits such as mental health.

Conclusion

This study aimed to explore the experiences of improvisers across neurotypes (autistic, non-autistic yet neurodivergent, and neurotypical). Neurotypes were not found to vary the experience that improvisers had beyond two key aspects: mental health not being mentioned by NTs and autistic responses to neuro-normativity in life. Nonetheless, neurotypes did not prospectively seem to matter as much as like-mindedness. Across all improvisers, participants discussed benefits related to quality of life and well-being. An important context seems to be the negative impact of the neuro-normative social world. Some may not experience stigmatisation of themselves, whereas others may. Additionally, all improvisers had other facets of life that helped.

A.4. Keates, N. (TBC). New to improv: the benefits of participating in improv comedy for autistic adults. Sage Open. (Chapter 8)

Introduction

Autistic people have been attending theatre classes around the world for a number of years, for example, famous, professionally trained actors that come out as autistic, and even as a hobby (such as improv; Author1 & Author, under review-b). Performing Arts has been a positive experience for many autistic people, but not all (Author1, under review a). Brady et al. (2022) interviewed autistic comedians and found that they experienced a positive community of comedians. Moreover, Brady (2022) suggests that performing arts can be helpful in improving creative expression and self-advocacy with autistic people. Similarly, Kim et al. (2021) claim that inclusive theatre improves self-esteem, empathy, and socialisation of autistic children. Consequently, it is generally perceived that performing arts and theatre can be a positive experience. Nonetheless, given the wide range of performing

arts, it is of interest to understand specific forms. Furthermore, comedy (commonly associated with stand-up) is markedly different from other theatrical forms of comedy (i.e., improv comedy, henceforth improv), that is, collaborative co-creation (Spolin, 1999).

Improv is a small subset of theatrical improvisation in which agents create scenes or songs through spontaneously formed or premeditated games or story/song structures (Keates & Beadle-Brown, 2022). It can lead to benefits such as added value to one's life, social and communication skills, and being part of a community (Keates & Beadle-Brown, 2022). Author1 (under review a) found that, across all neurotypes, improv can benefit agents' personal and professional lives, quality of life and well-being, and mental health for neurodivergent improvisers. Furthermore, Author1 (under review a) found that *regardless of neurotype*, improv can help develop social and communication skills, such as turn-taking for autistic people and cognitive empathy for neurotypical people (NTs). Autistic socialisation and communication are not deficits, but a difference in the implementation to NTs. A system of interpretation (as discussed by Garcia-Landa, 1993, but adopted as follows) can be stated as communication style ("...communication involves messages, and messages are always socially meaningful only within some contextually and historically created system of intersubjectively shared understandings," Delia & Grossberg, 1977). In this context, this means autistic people appear to have a system of interpretation that is usually not taught to autistic people; therefore, training programmes using anything other than autistic communication are likely to lead to passing (as neurotypical) and the harm derived from this (see Author1 et al., 2022). Therefore, in relation to autistic people, it is important to be careful about ableism (Wolbring 2008). Therefore, when considering the benefits gained from any available hobbies or interventions accessible to autistic people, understanding the efficacy of the outcomes for autistic people is key. In addition, benefits may be from developments in skills or strategies; the distinction between these is that skills are a natural

part of one's repertoire (learned or otherwise attained), and strategies are approaches to manage certain situations in the moment (for issues with the distinction, see Afflerbach et al., 2008).

Similarly, it is important to consider the context in which the benefits can be gained. Much alike Author1 (under review-a), life impacts what can be gained from improv. Autistic people are a minority group with historic and current prejudice against them (i.e. pathologisation) (Botha & Frost, 2020). The term 'spatial imaginaries' contends that the lived experience of a place includes physical, political, social, and symbolic spaces (Lefebvre & Nicholson-Smith [Trans.], 1991). Nerlich (2015) states that, "a spatial imaginary is a shared or collective understanding of a particular space produced in association with the practices of living in that space." Therefore, as Lipsitz (2007) asserts, even after removing segregative practices, the residual imagination of space remains, leaving a distinct contrast from the space of minority identity. In other words, the 'felt' space (of any kind) will maintain the segregation and stigmatisation of a body of people.

There is a paucity of research on improv and autistic people (Author1 & Author, under review-a). There is limited research on what can be gained from attending improv classes. This study seeks to extend the knowledge added to Author1 (under review-a). Therefore, this study explores the role and benefits of improv for autistic adults across the world who were new to participating in improv classes.

Specifically, the research question of the study queries how autistic adults experience an online 4-week improv comedy course, and whether the participants believe there had been any benefits from participating in the sessions.

Methods

Participants

The participants (n=17) were aged between 25 and 56 years ($M_{\text{age}}(SD)=32.56(10.98)$). The gender identities of the participants were 47% male, 29% female, and 24% non-binary. The participants resided in various countries: 18% in Australia, 29% in the UK, 41% in the USA, 6% in Puerto Rico, and 6% in France (but from Russia). Of the participants, 76% were Caucasian, 18% were of mixed ethnicities and one participant identifying as Hispanic. 59% of the participants were formally diagnosed and 41% self-identified as autistic.

Materials

Sample characterisation

Demographic characteristics of the participants were collected before the commencement of the improv course (six questions with some follow-up regarding gender identity, age, ethnicity, and prior improv experience (participants were excluded if they had prior experience)). One participant had learned improvisational dance, but this was deemed not the same by them or the teacher.

Improv Classes

Based on Author1 (2017), the course manual was adapted into a four-week online course (using Zoom) and consisted of games, exercises, and discussions. For example, converting the game 'Popcorn' into an online name game, whereby traditionally participants physically jump up and lose if they jump up at the same time as another person. The adapted version removed losing and changed jumping to switching their camera on and stating their name in a playful manner (i.e., the participant showing their dog upon switching their camera

on instead of themselves). The classes focused on identifying practical applications of ‘Yes and...’ (a key principle in improv meaning to be in agreement and building on what happens), practising engaging in play and one and another, and implementing support in the working environment (session 1); creating shared stories and scenes, practising failing, and implementing support in scenes for the other actor (session 2); practising heightening as making worse, making important, and generally making more of the situation and circumstance (session 3); and in session 4, participants focused on demonstrating emotional integrity in the scene and stating what was interesting or enjoyable about other people’s performances.

The classes were designed specifically for autistic adults through practice review, piloting, and adapting to the participants (through their feedback; see Author1, under review-b). Furthermore, they were organised to run at a convenient time for each group. Each group consisted of four autistic participants and the teacher (and on the third and fourth week, an additional autistic teaching assistant with some improv experience joined to support participants).

Focus Groups

The focus groups were conducted online over Zoom using common procedures (akin to Morgan & Krueger, 1998) with each class (only four participants), such as stating people’s names after they speak (thanking them) to ensure that it is clear who spoke for an accurate transcript and pausing so as to not rush anyone (offering more time to think and speak). The focus group schedule pertaining to benefits was asked each week, including at the end of the last class to identify final thoughts regarding the whole course.

Each focus group took between 30 and 45 minutes, except for the fourth week, which took approximately 60 minutes (to discuss the course after its completion). Therefore, the schedule was the same, except for the last session, which used different questions.

Before the course, all participants read the information sheet and consented to participate. Additionally, consent to be recorded was obtained each week before digital recording via Zoom and uploaded to MS Streams (automatically transferred to the university's secure SharePoint storage using MS Office 365 Streaming tool).

Procedure

The study was approved by the [university-redacted for blinding] ethics committee in October 2020. Recruitment of participants occurred through national, local, and social charities and organisations, relevant mailing lists, and social media. The online classes were run for an hour and 15 minutes with a short break before administering the focus groups. The course was four weeks long and consisted of the basic pedagogy of improv. The course and focus groups were organised to occur at a mutually convenient time, accounting for participants residing across the world in various time zones. The data reported below are only from the focus group.

Data analysis

In this study, NVIVO version 12 and Microsoft® Excel® for Microsoft 365 MSO supported the analysis and development of the themes. Participants' information was redacted where necessary and names were pseudonymized.

The data were analysed using Qualitative Content Analysis (decontextualization, recontextualization, categorisation, and compilation; Bengtsson, 2016). Therefore, the

analysis began by identifying the meaning in the participants' data sentence by sentence. Thereafter, it is necessary to classify the relevant content and exclude "dross" (Bengtsson, 2016). The third step was to distinguish the data into homogeneous groups. Finally, the analysis was finalised by categorising the data, clarifying the themes, and forming realistic conclusions about the data.

Inter-rater reliability was sought by the same two impartial researchers (from different fields of interest), both of whom coded 20% of the data independent of each other. All researchers came to a complete agreement with the themes. Practices for ensuring trustworthiness were employed based on Lincoln & Guba (1985), such as prolonged engagement for credibility and dependability and inter-rater coding for transferability and confirmability.

Community Involvement

The research was guided by an autistic consultation group (n=11) via written communication such as e-mail correspondence. The proposed research and methodology were the key considerations presented to the group. All autistic voices were heeded to produce meaningful research that was not tokenistic (Arnstein's ladder, 1969). For a detailed account of the application of the ladder in autism research, see Author1 & Author (2022)

Results

Five themes were identified in the data. These were: 1) 'Being accepted as and with other autistic people'; 2) 'Autistic valued skills, and allotted time to practice'; 3) 'Quality of Life and Mental Health benefits'; 4) 'Provides a way into or inspire an activity I want'; and 5) 'Not every autistic person will perceive or gain benefits'.

[Insert table 1 near here]

Theme one: Being accepted as and with other autistic people

For these participants, being accepted as autistic and having other autistic people seemed to be recurring. Participants felt supported through improv because of the groups themselves and being surrounded by autistic people. They were able to interact and be in an autistic group performing joint and fun activities and not a support or social group. This was termed to be, “inclusive by being exclusive” (Hayes, *week 4*). Furthermore, it has been suggested that the autistic world is more fun, and NTs should join autistic people. For example, “...the things I laugh at, and my world is amazing, except we've gotta go into your [NT] world ... [my] world will be so much, much better place.” (Madelene, *week 4*).

I agree just with Glenn and yeah about the, the- about and. About the community thing that it's like good because they feel like most of the. Community thing for encounter for the autistic community. It's more about like support groups and stuff, and not like learning skills and doing fun activities and stuff. So yeah, good to have a different context to interactive with other autistic people. (Carleton)

In short, being with neurodivergent individuals makes the experience easier. This is further noted in Hayes and Cassidy’s comment that the same social identity of being autistic leads to less masking, worry, and social freedom.

Hayes: With other neurodiverse people as well, that's something that's come up every week but like. It can't be overstated how important these kind of spaces are, where you can just unmask if you're able or like. And just not worry about making those mistakes. (Hayes)

Cassidy spoke to this earlier in the course, explaining that neurotypical people are confusing and stressful. Therefore, the instantaneousness of relief from being in the autistic group was beneficial within classes. Cassidy further speaks (to Hayes' point about the first meeting of neurodivergent people before knowing their shared identity) in relation to performing neurotypicality (or passing): "...*autistic people trying to perform neurotypicality to impress Neurotypicals who aren't there ...Once everyone realizes what's going on, it's fine.*" This can be further identified through Logan remarking upon the shared experience of being autistic and validation from other autistic people, and Hayes discussing NTs using words such as hostile and judgmental.

Yeah, it is one of those things where I find it absolutely fine to do with other autistic people, but neurotypical people find team to find it like confusing and stressful... (Cassidy)

Theme two: Autistic valued skills, and allotted time to practice

Based on the participants' data, it is important to clarify the use of skills and the obvious need to practice anything new. It was suggested that participants gain from additional skills for social, communication, and spontaneity as well as provisions for further coping mechanisms. The participants discussed flow, mindfulness, and the widespread application of improv that could benefit autistic people.

Improv allowed for the development of social skills, but the participants stated that skills or strategies must be valued by autistic persons. For example, neurotypical social skills training is not desired (see discussion in this chapter below regarding neurotypical social skills, and the inherent ableism of interventions adopting training programmes focused on neuro-normative social presentations or abilities rather than an autistic system of

interpretation¹ and autonomy), as directly stated in two groups in the data. The alternative concluded by the participants is developing social strategies (or skills² where applicable) as one part of their ‘social toolkit’ in which they can choose appropriate skills or strategies to fit their needs within a given moment.

Yeah, it's it's. It's adding an additional skill rather than replacing an earlier one that you make. You may start using less, but I think it's I think having it being very very value neutral on skills; I think this is really valuable because it just means that you know if someone comes out of this and just doesn't really get that [meaning understanding how to apply improv], then they're continuing scripting and that's fine. And that works for them.

(Cassidy)

Understanding how people perceive the autistic individual (of the participants) may be another skill that has autistic value, such as Madelene being seen as serious when the humour used is deadpan or dry. Likewise, an autistic person may not understand non-autistic banter, as they are perceived without the intended joviality. Therefore, illustrative of this from the participants is in regard to comedy and, specifically, sarcasm. The social bond of comedy in a group can be twofold, jovial social ‘bits’ like winding each other up and

¹ System of interpretation (discussed by Garcia-Landa, 1993, but adopted as per the explanation given) can be stated as communication style. To offer a quote, “...communication involves messages, and messages are always socially meaningful only within some contextually and historically created system of intersubjectively shared understandings” (Delia & Grossberg, 1977). In this context, this means autistic people seem to have a system of interpretation that is usually not taught to autistic people; therefore, training programmes using anything other than autistic communication is likely to lead to passing (as neurotypical) and the harm deriving from this (see Keates et al., 2022).

² For the purpose of clarity within the thesis, the distinction being used between skills and strategies is that skills are a natural part of one’s repertoire (learnt or otherwise attained) and strategies are approaches to manage certain situations in the moment. For the issues with the distinction between these terms and its history, see Afflerbach et al., (2008).

collectively releasing tension in the group or moment through sarcasm or comedy.

Understanding these phenomena will be helpful for autistic individuals.

I'd say, it's also helped me be more aware of sarcasm. 'cause I just don't get sarcasm and. It just, if anything, it really frustrates me and so now I've learned that it's it's just a tool that people use to have a laugh at something, or in my case they use it to wind me up 'cause it's quite funny when I'm wound up apparently, so it's using that. (Madelene)

Some participants felt that everything in the improv course was beneficial. They could see the applications of the course, suggesting that running an applied improv course, “*Like specific targeting would be good. ...So if I know like, how I could apply it.*” (Hayes). It was suggested that there may be potential for these methods to be employed for young autistic children to help people cope early with negative experiences. One aspect that was frequently enjoyed was failing with a smile, as it helped with the fear of failure. This is highlighted in Kamila’s quote.

Again, I think that there's like real world applications here, because you know the not having a fear of failure because. I think a lot of us have a fear of failure. And then sort of turning that on its head like no failure, we bow. Like you bow after a great performance and people are applauding, so it's. (Kamila)

Going with the flow was deemed a valued skill that was experienced and developed through improv classes. Going with the flow seemed to mean being able to integrate oneself into the circumstances of the moment. Practicing improvisation provides an approach for going with the flow in conversations, which could improve the experience of the interaction.

...being a bit more going with the flow, like they said something I didn't expect, but 'Oh well, fuck it.' I'm gonna say this 'yes and' type of thing... I might start to apply improv tools.... (Kasey)

Mindfulness is another valuable skill. Improv can lead to being more mindful and letting go of control. This was possible because improv requires being in the moment and being present with whom they are interacting.

I think I think improv has definitely helped me in focusing what I say, how I say it (unclear) focusing just on how I'm feeling at this specific moment and not really focusing too much on how I've behaved in the past. (Julia)

Theme three: Quality of Life and Mental Health benefits

This theme explored the gains participants suggested related to quality of life (QoL) and mental health, including well-being. For example, engaging in improv as an autotelic activity seems to enable a sense of optimal experience and flow. In addition, the participants suggested that the classes helped their mood and made it a good day, “it brought more colour to my- to these weeks. More colour, more fun, more interest in that creativity and imagination like bubbles into the rest of your day.” (Kamila). Moreover, it supported participants in transcending their boundaries and achieving more personal development. Just as improv offered improvements to the participants' QoL, it seemed to build self-assurance by knowing that nothing bad would happen. With this in mind, improv seemed to help their mental health.

As discussed in the overview of the theme, there were several comments related to QoL. These were used to indicate their value for autistic participants. Some participants felt gains that seemed to be related to their personal development, emotional well-being, and improved self-determination.

Was also good for flexibility because I did find that happening with myself that I would be. I would have an expectation which I would pretty much immediately just throw out the window if it didn't go that direction... (Logan)

The participants gained emotional well-being (contentment, self-concept, and lack of stress). They discussed feeling great as they returned to their daily lives and felt refreshed. The experiences they gained in class underpinned the rest of the day.

Carleton: And I feel in a much better mood now than I did before the session.

Glenn: Me t- me too.

Autistic people may not usually feel heard or listened to in relation to self-determination. Improv teaches active listening, so it is possible that this would be a benefit to be obtained by building confidence in one's own value and voicing opinions and perspectives.

I-I was gonna add to that that if someone with autism doesn't feel like there. Being heard or could contribute maybe improv could help someone with that that they feel that. ...this might be the thing that actually feel like they can be themselves, and they're treated as an equal. (Crystal)

Next, mental health benefits were generally discussed in the three of the groups. One aspect of mental health improvement is resilience, which can be seen in Kasey's quote below.

And also like maybe maybe it could be something to like like especially with like anxiety and all that it might be something to help in that those cases so. (Derren)

I definitely think it's helped my mental health. ...But I am more- ...More resilient, more engaged... I feel after one of these sessions afterwards... the resilience and the connectedness with my family and stuff and my capacity to cope with madness is a lot better.
(Kasey)

It is necessary to identify that hedonistic well-being was experienced. This was achieved by gaining fun and laughing. They benefitted from finding a form of happiness within classes.

Had so much fun (giggle). Um, yeah, I think that like. It was also just a great way to, yeah, like break the tension like you were saying earlier, Kamila, of like, just being able to move into that state of like playing and laughter and that kind of thing.... (Logan)

Theme four: Provides a way into or inspire an activity I want

The participants were inspired by participating in the course to go forward with other activities. Many autistic participants enjoyed the course so much that they wished to continue improv. If improv was not for them (i.e., clear for one or two participants), they made other realisations (for example, they returned to Toastmasters, who teach public speaking and leadership skills worldwide through their clubs). Similarly, they gained the sense of being able to risk and engage with others in play (outside improv).

Clearly adults are creative and playful...so I'm going to attempt to get adults to play a little bit... (Kamila)

I feel that if I if I. I mean when everything goes back to normal, whatever that means, I will feel more comfortable or more encouraged to go to an act to an in-person, improv class, which is something I never would have said before. (Duncan)

...doing this that kind of reinforced to me that I needed to go back to Toastmasters. So, I've- I went to two Toastmasters meetings in the last week. Toastmasters is like a public speaking and leadership. (Crystal)

Theme five: Not every autistic person will perceive or gain benefits

The participants stated that improv might not be for everyone. This implies that, even if it could be taught to meet everyone's individual needs, it might not suit all autistic people. Similar to any form of 'intervention' or activity, it cannot meet the needs of everyone. Those who did not particularly like improv did not understand the reason for engaging in it or found the initial games and exercises too difficult. Conversely, for those who enjoyed the classes, a number of benefits were experienced. As stated by Kasey, it could be more about people's personality than their neurotype for those who may enjoy and engage in improv (and hence benefit).

Crystal: I don't think it will suit everyone who's autistic, but there is- suit half the people.

Kasey: Yeah, I agree, I don't think it's necessarily a 'every autistic person do this and you'll get these benefits,' but I definitely think there's sort of like a Venn diagram of autistic and certain other personality traits where I think it's a really good fit.

Discussion

This study sought to explore the experiences of improvisers new to improv (during a four-week introductory course conducted online). The key findings were gains as an autistic person through acceptance and of being autistic (i.e., not needing to mask or pass), valued skills development (including for coping in life), QoL, and mental health benefits. Improv

was an enabling activity for most of the participants. However, not all autistic people saw value in improv.

Power and autistic space

Participants desired an autistic space in classes (people, beliefs, and voice in regard to self-determination and skills). When acknowledging being autistic as a blemished identity (frequently leading to masking), it is viable to understand that autistic people occupy neurotypical space (as discussed across themes, including ‘Being accepted as and with other autistic people’ and ‘Autistic valued skills, and allotted time to practice’) (as per the term spatial imaginaries, see introduction and Lipsitz 2007, 2011) – in everyday life, their existence is within the world dominated by neurotypical norms and socio-political constructs, meaning they are subservient to the needs of the empowered typicality. Thus, passing or masking occurs to hide autistic traits or fit into a normed society (for example, Cook et al. 2021). Moreover, albeit that autistic people are not institutionalised for being autistic (as per before the deinstitutionalisation movement) (D’Astous et al., 2016; Waltz, 2013) (and this is not always true, or at least only true for other falsely diagnosed ‘disorders’ for sectioning, Rosen et al., 2018), the residual, powerful imaginary space of neurotypicality is present; it causes known harm (e.g., neo-eugenics or the propagation of devaluing autistic life, such as curing or ‘normalising’ autistic people). Furthermore, Tyler (2020) discusses stigma as positioned within the socio-political structure (fitting autistic lives well). Consequently, the interactional nature of the stigma is cultivated in a wider social world. Therefore, in improv classes with only autistic people (or neurodivergent identities that seem acceptable), valued skills can be attained by the comforting presence of the rest of the group. Similar to festivals, the improv classes seem to offer an “alternative imaginary of social hierarchy” (Belek, 2022), affording the participants to make visible the previously invisible (e.g., unmasking through

other non-literal ‘masks’). Furthermore, it seemed to provide a ‘shared flow’ and *communitas* (the latter coined by Turner, 1987) within the structures of the class and improv (Belek, 2022), which flow is a common experience (Drinko, 2013; Goodman, 2008; Lobman, 2005) and *communitas* has been previously noticed in improv (Fortier, 2010). Moreover, the desire for skills that may be the same as non-autistic stakeholders, may well be in fact techniques and strategies to manage the neurotypical world and the consequential spatial matters. The skills found beneficial can be both for overcoming social burdens and for coping in and with life. Being empowered with coping strategies (e.g., for shopping, Author1, under review-a) is a valued skill.

The autistic identity is important in a variety of ways; however, for benefits experienced, the autistic participants spoke about not needing to mask, the relaxing nature of being with other autistic people, and instantly understanding one another’s sensibilities (including humour) (as depicted in ‘Being accepted as and with other autistic people’). Much can be asserted about being a member of the autistic community, such as reclaiming identity from a biomedical diagnosis (Parsloe et al., 2015). However, an autistic space is vulnerable, such as in Bertilsdotter-Rosqvist et al. (2020, p. 170), “the presence of non-autistic researchers may transform the autistic space into NT space, as the autistic space is fragile to the neurotypical gaze.” Therefore, neuroshared spaces require negotiation (Bertilsdotter-Rosqvist et al., 2013). This could include navigating the complexities of negative discourse (e.g. stigma, remaining internalised ableism, demonstrable attitudinal change from present NTs or their implicit and explicit biases), yet the likely remains of autistic spatial imaginaries could be a sustained limitation causing an issue; thus, gaining a relaxed space with civility (i.e. harmonious and collaborative learning environment, yet maintaining a contested space (Barrett, 2010; Feldmann, 2001; Ludlow, 2004; Marini, 2009), and reduced anxiety when NT are present may be a persistent problem. A neuro-separate space consisting of only the

autistic community seems to experience connectedness, which includes *belonging* to other autistic people, *social connectedness* as in forming friendships, and *political connectedness* as having similar political or social equality goals (Botha et al., 2022). Moreover, these communities can build an invisible social and even material infrastructure (i.e., offering food and shelter; Idriss, 2020). The autistic community appears to help autistic individuals gain mental well-being benefits (Maitland et al., 2021). Through an autistic social identity, it is possible for autistic people to gain mental *health*. As the reported findings suggest, the participants valued learning with other neurodivergent people. As such, various participants harnessed the group's autistic identity when speaking to the benefits of improv by offering clarification about skills and the gain and huge ease provided by this shared identity in classes.

Skills.

Some skills seem to bridge the gap between autistic space and QoL (e.g., the sub-theme 'Going with the flow, letting go, and mindfulness'). For example, interpersonal skills development is attuned to appended skills that could be more about coping (with the NT communication style and NT social needs) than social skills training; as such, the autistic system of interpretation should be enabled by autistic interlocutors instantaneously being more at ease in communicating with other autistic people (Chen et al., 2021; Crompton et al., 2020a; Crompton et al., 2020b). In other words, autistic participants seem to value additive purposes that offer strategies and skills. This means that there should not be one *right* system of interpretation dictated, which seems to result in consistent devaluation of autistic socialisation. For example, Umagami et al. (2022) stated that social skills training reduces loneliness, but conforming to non-autistic peers increases loneliness (through camouflaging). The skills and strategies developed through improv were deemed valuable as long as they

were additional and did not replace natural autistic repertoires (i.e., skills). Nonetheless, the range of skills and strategies that can be considered valuable can be regarded as heterogeneous.

Another form of coping could include humour (e.g., through the practice of failing with a smile, which many groups noted as being strongly valuable). This may combat rejection sensitivity dysphoria (RSD) in part because autistic people can consciously change their perspectives with practice. Commonly, autistic people are viewed as not being cognitively flexible (as per executive functioning theory; Damasio & Maurer, 1978; Pellicano, 2012). Not only does ‘fail with a smile’ support thinking afresh, but improvisation was also found to support being more cognitively flexible (perhaps due to the constant practice of spontaneity). Moreover, being able to fail was increasingly supported by other aspects of experience, such as going with the flow, letting go, and mindfulness. Although the latter tenet of improv is questionable (as a fundamental component, Keates & Beadle-Brown, 2022; Schwenke et al., 2021), these facets link well to autistic needs (as expressed above). Being able to let go, be in the moment, and fail without concern are all relevant to a better QoL.

Quality of life and well-being

The concept of QoL is broad and could allow people to individualise each QoL domain, making these relevant to themselves (as participants describe the benefits in the theme, ‘Quality of Life and Mental Health benefits’). The findings appear to illustrate that Schalock et al.’s (2002) domains are relevant, at least in terms of the benefits of engaging in improv. The relevant QoL domains (Schalock et al., 2002) were personal development, emotional well-being, and improved self-determination. Autistic people can gain personal growth and development such as cognitive flexibility. Beyond this cognitive competence,

there is a sense of refreshment. In Morse et al. (2018), participants experienced mood changes and social and personal development through improv. Similarly, positive affect existed during an improv intervention for dementia patients, which implies a QoL improvement (even if only momentarily, and not sustained afterwards) (Zeisel et al., 2018). Acceptance in an autistic life seems rare, but has been found to help when present (Pearson et al., 2022). However, within improv, the fundamental principle of acceptance fits the modern movement of #autismacceptance (over awareness). Schwenke et al. (2021) found that acceptance of others and self-acceptance occur from improv, which leads to better psychological well-being (through self-esteem and self-efficacy). This links well to self-determination, because it can be enhanced by acceptance (Kim, 2019; Webster & Garvis, 2020). According to Gordon et al. (2018), it is possible to indicate that QoL improvements may be through the liminality of improv that may proffer agency to the marginalised group (i.e., the empowerment and self-determination gained, or cathartic self-expression and exploration in accordance with dramatherapy practices). Therefore, some participants experienced confidence to be outspoken and voice themselves through an accepting learning environment, humour, or play, and potentially not feeling their autistic social identity was devalued.

Positive identity has been clearly identified in these data, which links to the past consideration of *autistic* QoL discussed by McConachie et al. (2020) (positive autistic identity, reducing misunderstanding of autistic people, addressing sensory needs and problems, and autistic people's participation in society). Milton & Sims (2016) found that well-being could emerge from feeling connected and gaining recognition from other people, positive, accepting relationships, and within autistic-led spaces. Although the course was run by a perceived NT teacher, this had little impact on autistic participants who were able to succeed and flourish together. Furthermore, it is believed that this qualitative depiction of felt

benefits meets the call for an autistic voice (Waldock, 2019) by interpreting their experience and aligning the data with known QoL constructs.

Mental health benefits were indicated in the qualitative findings (as per the theme ‘Quality of Life and Mental Health benefits’). These findings seem to indicate links to positive psychology, therapeutic practices, and hedonistic well-being. Generally, mental health was discussed by a few participants who identified key positive psychological concepts, such as resilience (e.g., regaining energy to cope and re-engage with their hectic life) and flow (Peterson & Seligman, 2004). As noted in the findings, resilience and connectedness to family were experienced, which was further linked to general mindful awareness. Flow was expressed in line with that of experienced improvisers (Author1, under review a). This was less about all seven aspects of an optimal experience and more in regard to attentiveness to the moment and being present (i.e., complete immersion in the present moment; Csikszentmihalyi, 1990).

In any case, hedonistic well-being was present at the beginning of the participants’ improv journey. The experience of being allowed to play, have fun, and seek pleasure for its own sake was beneficial. There seems to be a double standard present in general activities for neurodivergent people, as neurotypical people can engage without it being to help them in some way (Therapist Neurodiversity Collective, 2022). However, not all autistic people may value hedonism. Therefore, because of either this or another aspect of the merit of improv being unwanted or diminished, not all autistic people will experience benefits. Although the aim was not to identify what improv could not be achieved, it was stated that it might not be beneficial for all autistic people. Therefore, for *some* autistic people, improv may be a “personalized, strength-based interventions” (as called for by Schuck et al., 2021) or activity in which they can engage.

Limitations

Numerous factors may contribute to these benefits. For example, a possible line of enquiry could be regarding the importance of group identity, which queries whether these benefits would be gained in a mixed neurotype cohort (albeit that we know many of these benefits occur based on Author1, under-review-a). As one of the groundwork studies on this topic, all the insights were valued. Therefore, some aspects of themes deemed worthy were included that may be deemed more anecdotal (i.e., true for one participant). Lastly, the study was conducted during the optimisation of learning, which may have impacted the participants' experience of benefits.

Future directions for research

Further studies should re-examine this phenomenon to verify these findings. Furthermore, future studies could investigate grouping, that is, mixed neurotypes in classes. Similarly, personality or others breakdown a person that links for whom improv holds benefits or best suits. Furthermore, it may be accepted and supported regardless of identity or disability (i.e., being autistic); therefore, potential research could break down elements of improvisation itself, perhaps comparing broad forms of improvisation, such as dance-based (for example, Action Theatre or Butoh), Playback Theatre or Theatre of the Oppressed (i.e. dealing with life experiences in performance), and improv. Lastly, determining the weighting of where the benefits derive (e.g., explained by 52% being within an autistic group and 26% by improv).

Conclusion

Improv appears to be beneficial for autistic adults. These include acceptance, learning-valued skills, and quality of life (QoL). Importantly, improv was an enabling activity

for most of the participants. In contrast, not all autistic people will gain or perceive value in or from improv. Nonetheless, having an autistic space where autistic identity may thrive seemed helpful (e.g., reducing power imbalance).

Appendix B: KICS: Exploring the benefits of participating in improvisation comedy (adjusted)

I understand that by completing and submitting the survey I am confirming that:

- I have read and understood the information on the previous page;
- I understand that my participation is voluntary, that I do not have to give any reason for not participating and that not participating will not affect my involvement in improv comedy, or legal rights;
- I have had an opportunity to ask questions and these have been answered to my satisfaction;
- I understand that once I submit the survey I cannot ask for my information to be withdrawn as all data is anonymous;
- I understand that the findings from the research will be used in a student thesis and in a variety of reports, academic papers and conference presentations;
- And I am happy to participate in the study.

Please click NEXT to continue.

Although this survey uses the term 'improv comedy', it includes impro, improvisational theatre and other terms.

Have you participated in multiple improv comedy training events and/or performances (or other used terminology, such as, but not exclusively, impro, improvisational theatre, etc.)?

- Yes

- No

Would you define yourself as an improviser (or similar terminology, such as, but not exclusively, improver, improvisational actor, etc.)?

- Yes
- No

What term do you use for this or these art form(s)?

Do you still participate in improv comedy training events and/or performances (any form of practice, including, but not restricted to, rehearsal, class and performance)?

- Yes
- No

How many years have you been doing improv comedy? (numbers only)

How often do you practice improv comedy (any form of practice, including, but not restricted to, rehearsal, class and performance)?

1 time a week

2 times a week

3 times a week

4 times a week

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5 times a week

6 times a week

Everyday

Ad Hoc (per month)

Rate these statements on the level that you agree or disagree with them. (Tick one box only)

	Strongly Disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
Improv has added value to my life							
I have become better at socialising due to improv comedy							

What is lacking that you want more of in your improv comedy?

What is there an abundance of in your improv comedy that you enjoy?

Based on how true these statements are, rate them on how much you agree or disagree with them. (Tick one box only)

	Strongly Disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
--	-------------------	----------	-------------------	----------------------------	----------------	-------	----------------

I communicate more effectively with others in my life due to improv comedy training and/or performance

There are more than ten people that want the same as I do from improv comedy

What do you mostly do in improv? (Tick one option)

- Take classes
- Perform (as much as you want)
- Produce improv comedy/theatre events
- Rehearse with improv group(s)
- Teach improv comedy

Rate the following on how relaxed you are.

Improv comedy relaxes me during the training and/or performance with a group that I am a member.

Rate the following on how relaxed you are.

Not at all Completely relaxed

0 1 2 3 4 5 6 7 8 9 10

Improv comedy relaxes me during training and/or performance with a group that I am not a member.

Not at all Completely relaxed

0 1 2 3 4 5 6 7 8 9 10

What makes an improv partner (or other terminology) trustworthy?

Rate the following statement on the level of how frequently the trustworthy quality you stated occurs (tick one box only).

	Never	Sometimes	About half the time	Most of the time	Always
How frequently do these qualities occur in those with whom you perform?					

What is your gender? (If other, please state)

Male

Female

Other

If other, please state.

How old are you? (in numbers)

If you are not willing to specify the exact age, please state what decade you are within (e.g. 20s, 30s, etc.). If you are nearly into the next decade, for example, 19, please state 10s, not the next decade.

Do you classify yourself as disabled?

Yes

No

Prefer not to say

Please specify your ethnicity.

Black or African American

Native American or American Indian

Caucasian

Asian / Pacific Islander

Hispanic or Latino

Other

Where are you based or currently living now? (Please state as the city AND country)



Where were you brought up or born? (Please use the place you feel is your origin, and state as the city AND country)

What is the highest degree or level of school you have completed? If currently enrolled, highest degree received.

No schooling completed

GCSE or equivalent

Further education/College graduate, a-levels or the equivalent (for example: BTEC)

Some university credit, no degree

Trade/technical/vocational training

Associate degree

Bachelor's degree

Master's degree

Doctorate degree

What is your marital status?

Single, never married

Married or domestic partnership

Separated

Widowed

Divorced

We thank you for your time spent taking this survey.

Your response has been recorded.

Appendix C: Schedules

Interview

Demographics

Please tick one box.

1. What is your gender?

Male

Female

Non-Binary

Other

If other, please state:

2. How old are you? (in numbers)

If you do not wish to specify the exact age, please tick one box in the provided categories. You do not need to do both the exact age and the categories.

18-24

25-34

35-44

45-60

60-79

80+

3. What ethnicity do you describe yourself as?

4. Where are you based or currently living now? (Please state the country only)

5. How long have you been involved in improv (years or month, or classes (if not months and short one-off classes or one or two series))?

Interview Schedules

Ultimately, it is my role as researcher here to stay quiet and let you tell your experiences. I will stay silent unless it seems necessary to speak and prompt or move on.

You can choose to not answer any question, if you need or want to. If you wish to remove your data, you can do so up to when it is being analysed. Also, I will be recording this interview, so to accurately transcribe it later.

Pre-requisite Question:

- Have you participated in any improv comedy classes, rehearsals or performances?
 - Are you still doing any improv?
 - So, how long have you been doing improv (e.g. 1 class, 2 years of doing improv, etc.)?

We will now speak about what you may have gained from the experience of learning and performing improv comedy.

1. What have been the **benefits** of doing improv, if anything?
 - a. PROMPT: for everyday life?
 - b. PROMPT: for work life / personal life / intellectual life?
 - c. PROMPT: what is your 'Yes And' story?
 - i. Are there any benefits from improv within this story?
2. What are the benefits for autistic adults participating in improv comedy classes, if any?
3. And were there any skills developed?
 - a. PROMPT: skills as tangible abilities
 - b. PROMPT: transferable skills
 - c. PROMPT: any experiences you've had from using skills of improv in life?
 - d. Were there other **skills** that you hoped to take from participating in improv comedy, if any?
 - i. Tell me more (what ?)

We will now speak about what you believe makes a good improv scene partner.

4. What makes an improv partner trustworthy?
 - a. What attributes can an improviser have that makes them easier to improvise with?
 - b. Can you provide any examples?
 - c. Would this or these attributes be useful to have in the people you meet in life?
 - i. PROMPT: at home
 - ii. PROMPT: at work
 - iii. PROMPT: strangers
 - iv. Tell me more.
 - v. PROMPT: any experiences you've had where these attributes would have been useful?
 - vi. PROMPT: any experiences you've had where these attributes have been useful?

We will now speak about what issues you may have experienced when learning and performing improv comedy.

5. Did you have any improv classes, practices or rehearsals that were unpleasant?
 - a. If so, can you explain what the experience(s) was like?
 - i. Tell me more, if you feel comfortable.

b. Did you continue doing improv or stop because of this (or these) experiences?

i. If you stopped, have you wanted to try other classes or rehearsal groups?

a. If not and you feel comfortable, why did you not want to try?

b. If so, why that group?

ii. If you continued, why did you choose to try again?

a. Did you change the group you were improvising with?

b. If you changed who you improvised with, why did you choose that group or organisation?

c. If you did not change who you improvised with, why did you continue with them?

d. (Tell me more.)

Next, we will speak about your life and the world we live in.

6. Can you tell me about how you fit into the world around you?

a. PROMPT: has being xxxx (e.g., dyspraxic) affected how you fit in?

b. PROMPT: do you fit into the world? (people / structures / life being hard or easy)

c. PROMPT: how does the world work in a way that helps you?

- a. If not, can you tell me about this.
 - b. Is this different since starting improv comedy?
7. Have you **actively** pretended to be not autistic / true and full self in your life?
- a. If so, how has this affected you (positively and/or negatively)?
 - b. PROMPT: any experiences that you would like to share?
 - c. PROMPT: trying to fit in with the people surrounding
8. Do you find it harder or easier to **socialise** with improvisers than any other people?
- a. If so, how?
 - b. If so, why do you think this may be true?
 - c. Is this different or similar to how you socialise with autistic people (who do not do improv) – if you do socialise with other autistic people?
9. Do you find it harder or easier to **communicate** with improvisers than any other people?
- a. If so, how?
 - b. If so, why do you think this may be true?
 - c. Is this similar or different to how you communicate with autistic people (who do not do improv) – if you do communicate with other autistic people?

To conclude, we will discuss more on any of the topics you wish.

10. Is there something else that you would like to say about any of these topics:

- Benefits from doing improv comedy;
- Bad experiences doing improv comedy;
- Pretending not to be true self in your life in general;
- Socialising and communicating with improvisers;
- Changes in your life since beginning improv;
- Any experiences or ‘stories’ that you recall that may include any of these topics.

For Neurotypical improvisers

We will now speak about what you may have gained from the experience of learning and performing improv comedy.

What have been the **benefits** of doing improv, if anything?

And were there any skills developed?

- a. Were there other **skills** that you hoped to take from participating in improv comedy, if any?

We will now speak about what you believe makes a good improv scene partner.

What makes an improv partner trustworthy?

- b. What attributes can an improviser have that makes them easier to improvise with?
- c. Would this or these attributes be useful to have in the people you meet in life?

We will now speak about what issues you may have experienced when learning and performing improv comedy.

Did you have any improv classes, practices or rehearsals that were unpleasant?

- d. If so, can you explain what the experience(s) was like?
- e. Did you continue doing improv or stop because of this (or these) experiences?
 - i. If you stopped, have you wanted to try other classes or rehearsal groups?
 - a. If not and you feel comfortable, why did you not want to try?
 - b. If so, why that group?
 - ii. If you continued, why did you choose to try again?
 - e. Did you change the group you were improvising with?

- f. If you changed who you improvised with, why did you choose that group or organisation?
- g. If you did not change who you improvised with, why did you continue with them?

Next, we will speak about your life and the world we live in.

Can you tell me about how you fit into the world around you?

Have you **actively** pretended to not be your true and full self in your life?

- f. If so, how has this affected you (positively and/or negatively)?

Do you find it harder or easier to **socialise** with improvisers than any other people?

- a. If so, how?
- b. If so, why do you think this may be true?

Do you find it harder or easier to **communicate** with improvisers than any other people?

- a. If so, how?
- b. If so, why do you think this may be true?

To conclude, we will discuss more on any of the topics you wish.

Is there something else that you would like to say about any of these topics:

- Benefits from doing improv comedy;
- Bad experiences doing improv comedy;
- Pretending not to be your true self and life in general;
- Socialising and communicating with improvisers;
- Changes in your life since beginning improv;
- Any experiences or 'stories' that you recall that may include any of these topics.

Focus Groups

As per provided to participants:

1. How useful were the following for developing skills at improvising:
 - Games and exercises?
 - Discussions?
2. What were the **benefits** of today's session, if anything?
3. How may someone **use** what was learnt today outside of these classes?
4. Next, anxiety: some may have felt anxious today or to come to this class; it is okay if you did or did not.

By hand gesture (low, mid, high – high being a lot), how anxious are you now after the class?

- Would anyone like to comment on: What may be the reason for this?

5. Was the time effectively used to meet everyone's needs?

6. Did anyone have any needs in the class that were not met?

- If so, what support would have been wanted?

7. Is there a better way to teach today's session?

- If so, what could have helped to better learn improv?

8. If there were any favourite moments so far, what were they?

- What about this moment was liked?

9. (after summarising the key points for adapting the next session) Did I correctly describe what was said?

Post- Focus Group Questions

1. How useful were the following for developing skills at improvising:
 - a. Games and exercises?
 - b. Discussions?

2. What were the benefits of the course, if anything?
 - a. What are the benefits for autistic adults participating in improv comedy classes, if any?

3. What skills have been taken or hope to be taken from these classes, if any?

4. The following questions can be answered for different times people laughed in class. So, we can discuss as many times laughing occurred that are remembered and wished to be spoken about.
 - a. When do you remember laughing in the class?
 - b. What happened to make the laughter occur?
 - c. If you know and can remember, what elements of this moment made you laugh?

This will be followed up in your log-forms (for opportunity for a more personal response).

5. By hand gesture (low, mid, high – high being a lot), how anxious are you now after the class?
 - a. What may be the reason for this?

- b. Would anyone like to say more on their anxiety during the classes? If so, what may be the reason for the anxiety?

6. What makes an improv partner trustworthy?
 - a. What attributes can an improviser have that makes them easier to improvise with?
 - b. Would this or these attributes be useful to have in the people you meet in life?

7. Is there something else that you would like to say about any of these topics:
 - laughter,
 - the anxieties during the research so far,
 - or are there any benefits from doing improv comedy?

Log-form

Your log-form can be completed via the link, over email or by voice. Both written answers emailed and voice recordings need to be sent to nk411@kent.ac.uk.

You do not have to answer all questions, but they may help you to provide a complete reflection.

- a) What is your participant code? If you do not know, state your name in the email.

- b) What week number is this log-form for (e.g., 1, 2, or 3)? If you are unsure, please use the date of the class.

For you to reflect about today's session, please comment on:

Please describe and explain for 1) during and 2) immediately after improvising, what emotional feelings you had (e.g., empowered, confident, excited, grateful, optimistic, motivated, creative, unsure, tense, anxious, confused, etc.).

How anxious were you before, during and now after today's class?

What was difficult in the session, if anything?

What could you not do, if anything?

What was easy for you in the session, if anything?

What did you find came naturally for you, if anything?

Has your mindset changed? Do you feel more able to improvise?

- If so, what has changed?

Post-Course Log-form Questions

Your log-form can be completed via the link, over email or by voice. Both written answers emailed and voice recordings need to be sent to nk411@kent.ac.uk.

You do not have to answer all questions, but they may help you to provide a complete reflection.

In the post-course log-form, there is an additional four sets of questions. Please use the questions to help detail your answers.

- c) What is your participant code? If you do not know, state your name in the email.

For you to reflect about today's session, please comment on:

Please describe and explain for 1) during and immediately after improvising, what emotional feelings you had (e.g. empowered, confident, excited, grateful, optimistic, motivated, creative, unsure, tense, anxious, confused, etc.).

How anxious were you before, during and now after today's class?

What was difficult in the session, if anything?

What could you not do, if anything?

What was easy for you in the session, if anything?

What did you find came naturally for you, if anything?

Has your mindset changed? Do you feel more able to improvise?

- If so, what has changed?

Were there any activities that you did not want to participate in, if so why?

- a. Would you now like to have participated in the game or exercise?
 - a. Can you tell me why?

- b. What stopped you from participating?

If you can remember, were there moments you could not laugh? What stopped you from laughing?

The following questions refer to occasions throughout the project. You can write about as many as you wish.

- a. Were you anxious at any time when participating in the research when not in a focus group (e.g., emailing me, completing surveys or log-forms, between classes, during the classes, etc.)?
- b. If you know and can remember, what caused this anxiety?

If you would like to describe a moment of the course that best helped you improvise, what was it?

- How did it help?
- Why is this a good moment for you?

Demographics (improv comedy course)

What is your participant code? If you do not know, please use your email address.

What is your gender? (please tick one box)

Male

Female

Non-binary

Other

Will you state how old you are in numbers?

Yes

No

What ethnicity do you describe yourself as?

White

Mixed or Multiple ethnic groups

Asian or Asian British

Black, African, Caribbean or Black British

Arab

Other

Are you Autistic? (Please note that this is more so to know for future studies rather than any requirements for these classes).

Self-identifying as Autistic

Diagnosed, evidence available

Diagnosed, no evidence available

Not Autistic

Do you have any prior improv experience (participating in classes or shows)?

No

Yes, only one hour or less

Yes, more than an hour of training in or performing improv

Appendix D: Measurement Instrument Example Items

State-Trait Anxiety Inventory for Adults

Sample Items:

I feel at ease

I feel upset

I lack self-confidence

I am a steady person

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Leibowitz Social Anxiety Scale

What is your participant code? If you do not know, please use your email address.

This measure assesses the way that social anxiety plays a role in your life across a variety of

situations. Read each situation carefully and answer two questions about that situation.

The first question asks how anxious or fearful you feel in the situation. The second question asks

how often you avoid the situation.

If you come across a situation that you ordinarily do not experience, we ask that you imagine “what if you were faced with that situation,” and then, rate the degree to which you would fear this hypothetical situation and how often you would tend to avoid it.

Please base your ratings on the way that the situations have affected you in the last week. Fill out the following scale with the most suitable answer provided below.

Fear or Anxiety

0 = None

1 = Mild

2 = Moderate

3 = Severe

Avoidance

0 = Never (0%)

1 = Occasionally (1%–33%)

2 = Often (33%–67%)

3 = Usually (67%–100%)

Please base your ratings on the way that the situations have affected you in the last week. Fill out the following scale with the most suitable answer provided below.

of an audience								
7. Going to a party								
8. Working while being observed								
9. Writing while being observed								
10. Calling someone you don't know very well								
11. Talking with people you don't know very well								
12. Meeting strangers								
13. Urinating in a public bathroom								

14. Entering a room when others are already seated								
15. Being the center of attention								
16. Speaking up at a meeting								
17. Taking a test								
18. Expressing a disagreement or disapproval to people you don't know very well								
19. Looking at people you don't								

know very Well in the eyes								
20. Giving a report to a group								
21. Trying to pick up someone								
22. Returning goods to a store								
23. Giving a party								
24. Resisting a high- pressure salesperson								

Thank you.

Please check the email to ensure you have completed all the surveys. The email will have all the links and you can check the names of them to whether you have completed them.

Tolerance of Uncertainty

What is your participant code? If you do not know, please use your email address.

You will find below a series of statements which describe how people may react to the uncertainties of life. Please use the scale below to describe to what extent each item is characteristic of you. Please circle a number (1 to 5) that describes you best.

	Not at all characteristic of me (1)	2	Somewhat characteristic of me (3)	4	Entirely characteristic of me (5)
1. Uncertainty stops me from having a firm opinion.					
2. Being uncertain means that a person is disorganized.					
3. Uncertainty					

makes life intolerable.					
4. It's unfair not having any guarantees in life.					
5. My mind can't be relaxed if I don't know what will happen tomorrow.					
6. Uncertainty makes me uneasy, anxious, or stressed.					
7. Unforeseen events upset me greatly..					



8. It frustrates me not having all the information I need.					
9. Uncertainty keeps me from living a full life.					
10. One should always look ahead so as to avoid surprises.					
11. A small unforeseen event can spoil everything, even with the best of planning.					

12. When it's time to act, uncertainty paralyses me.					
13. Being uncertain means that I am not first rate.					
14. When I am uncertain, I can't go forward.					
15. When I am uncertain I can't function very well.					
16. Unlike me, others always seem to know					



where they are going with their lives.					
17. Uncertainty makes me vulnerable, unhappy, or sad.					
18. I always want to know what the future has in store for me..					
19. I can't stand being taken by surprise.					
20. The smallest doubt can stop me from acting.					

21. I should be able to organize everything in advance.					
22. Being uncertain means that I lack confidence.					
23. I think it's unfair that other people seem sure about their future.					
24. Uncertainty keeps me from sleeping soundly.					
25. I must get away from all					

uncertain situations.					
26. The ambiguities in life stress me.					
27. I can't stand being undecided about my future.					

Thank you.

Please check the email to ensure you have completed all the surveys. The email will have all the links and you can check the names of them to whether you have completed them.

Appendix E: Adjusted Improv Comedy Manual

Introduction

- Based on Keates (2017), the sessions are planned with integration of resources from other practitioner's online information and a review through consultation with a small group that were willing to correspond using email.
- Additional games and exercises were combined into the plans.
- The wording has changed to be more explicit to the facilitator about what is expected, as the original is supposed to quickly provide student society groups to speedily acquire the skill and experience necessary to perform long-form improv comedy (and specifically *Harold*).
 - The speed of the sessions have been halved and a break has been created as an intermission to socialise or rest in private. The opportunity can be used as is needed, for the well-being of the individuals.
- Therefore, the content of the sessions do not achieve a whole level of what may be commonly expected in an improv comedy course. Nonetheless, the topics are to challenge the participants and enable the result of spontaneous creation.

Teacher guidance

Philosophy of work

- Teacher attitude and persona needs to enable engagement, such as being fun. This requires not holding oneself as superior or with power – it is more about the process and engaging in the content. The teacher will use a facilitative approach with Socratic methods in the implementation of the classes.
- Due to the potential life experiences of the autistic participant, the teacher needs to clearly state that the participants need to just be in the class for the fun of the games and exercises and focus on supporting each other.
- Everyone's needs are accepted. If they are non-verbal, the games can use those that are more able to be verbose to setup them to add a word (if possible). Additionally, the facilitator will adapt the games accordingly, where possible. Participation is voluntary, but everyone makes it fun to ensure they wish to play. Encouragement should be used and other people should be encouraged to want them to play with them (join in). This does not mean forcing or pressurising anyone, but just encouragement and (where possible) joining them or seeking to know the block to participation, using their interest as a starting point in the game. Participation can be helping another group with the game as an advisory role.
- Non-verbal participation has been noted in the sessions, except for with games and exercises, including feedback and discussion, when written participation can be used.
- The teacher will need to inform the teaching assistant on the games, exercises, and objectives in each session, to use them to help people to access the games when the

participant chooses. They are available for pastoral care and enable people to access what they wish to, as well as to join in (either for forming the necessary group number or encouraging others to play as motivation and energy).

- Feedback and discussion opportunities need to be kept as positive and accepting one and another. If a participant begins to single people out, the facilitator will need to promote positive feedback through compliments only. People are learning and developing, so criticism will more likely be harmful. The discussion should be returned to topic as soon as possible, which could be improv or other relevant areas of interest. The facilitator should use positive feedback from session one for every person to ensure they feel like they are developing.
- Similarly, if anyone feels embarrassed, the facilitator must take the responsibility for the failure. Furthermore, the incident must be reframed as a positive experience, which includes the use of a failure bow (if appropriate) and seeing events through multiple perspectives. It should be a learning opportunity for the 'gold' from the 'mistake'.
- Visual stage area – use the same space as the stage, even when the game requires a different use (see fig. 1 for practicality of using the space). Some games ask participants to be on the side, on the backline and other will be useful to use the stage entering from the audience.
- The room should be bigger than usually needed and not have any echo. This provides more space between the 'noise' that the groups create; although this does not fix the issue, it should help.
- The sessions seek to reduce explanation as much as possible and get the participants to try it whilst explanations occur. Therefore, begin getting people into groups and prepared as steps are given for them to do. However, demonstrations as a method of starting may be useful at times, but not all games and exercises suit this. These should be used to provide clarity of expectations of the games and elicit the potential feelings participants may have in them.
- Similarly, this approach highlights simplicity of improv and reminders about the need for only the two aspects of learning could be productive within the course (see sessions 1 - 3).

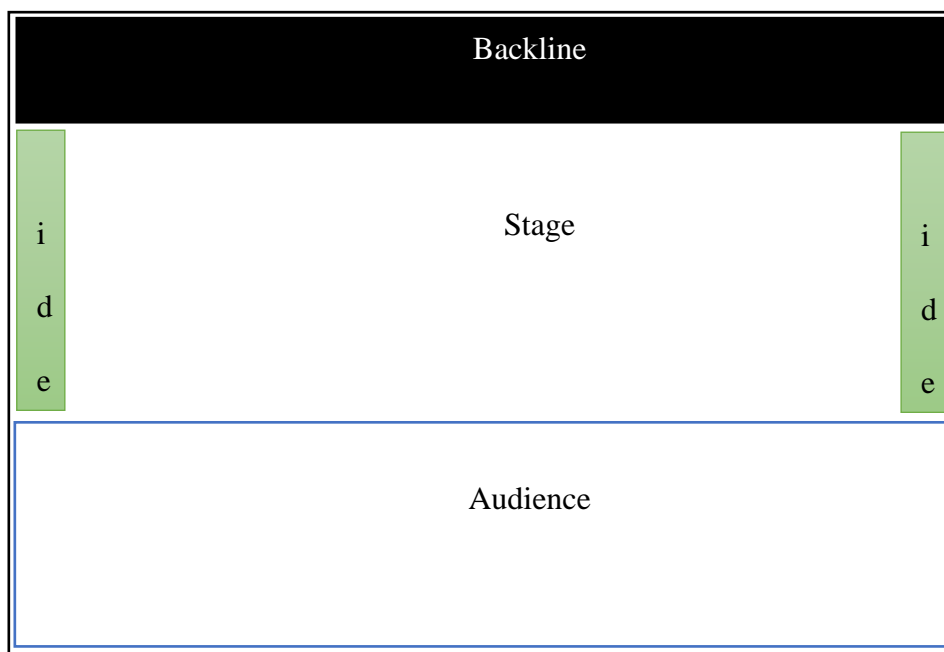


Figure 1. Room layout by concept

- The sessions are supposed to be a challenge, so people will struggle at points. The breaks are to assist in giving people an interval to have their own time, or to socialise.
- The series of classes seek ultimately to accept the individuals, including their autism; there may be people that do not accept their own autism. Nonetheless, the class uses people's strengths and is person-centred. They use co-operation and integration with collaboration and provide the space and opportunity for self-expression.

Attendance in Report

It will be necessary to know who is present in each class. This requires a system alike signing themselves in or similar to be a part of the teacher report. The report is a simple document that states what additional topics (in discussions were covered) and remarks on any alterations that were necessary.

Scheme of Work

Assessments (What is needed when)

The assessment of improv comedy and theatre skill will not be obtained, as this is redundant information. It may be of interest for some people to perform; however, posing it

as an opportunity with additional analysis of this could be interesting too. Dependent on the sample size, this may elicit a binary difference of non-performance to performance.

Teacher fidelity testing will be run three times. This will ensure that the manual is followed. A month before the classes begin, the first test will be completed. In the middle of the course, and at least a month after the first test, the second test will be executed. Lastly, the final test will be after the course has finished.

Aims and Objectives

First session is about starting strong with the group, having a good first workshop. The areas of the session are on support, reaction and awareness, and getting to know each other. The aim is to identify practical applications of ‘Yes and...’; practicing engaging in play and one and another; and implementing support in the working environment.

In the second class, it is about failing with a smile (and a bow), building positive relationships between the participants, and opening awareness to other people’s offers. The areas of the session are on give and take, reaction and awareness, and failing with a smile. The aim is to create shared stories and scenes; practicing failing; and implementing support in scenes for the other actor.

The third session is about reaction and awareness through emotions and heightening. This includes emotional drive and heightening. The aim of this session is to demonstrate emotional integrity in the scene; practice heightening as making worse, making important, and generally making more of the situation and circumstance.

The fourth session is about improvising open scenes with emotional stakes. This includes emotional drive and the pragmatic person to establish the importance of a detail. The

aim of this session is to demonstrate emotional integrity in the scene; and practice heightening and catalysing using revelations.

The fifth class is about physicality and commitment. This entails fully 'Yes'-ing the moment and fulfilling the game, scene or beat. The aim of the session is to identify the use of 'going for gold'; demonstrate acceptance and committing to everything; and practice playing the game.

The sixth session is about character and commitment. This entails not dropping anything of what has been already. The aim of the session is to synthesise, with awareness, the past in a scene; demonstrate commitment to the game and scene; and perform with cognitive flexibility.

The seventh session is about silence and physicality. The class will focus on embodying the role and giving pause. The aim of this session will be to practice being physically involved corporeally; identify the potential of reactions of silence; demonstrate use of the other person's physicality by mirroring.

The eighth session is about communication and object work. The class will focus on using subtlety and 'mime' to enrich scenework. The aim of this session will be to demonstrate communicating clues and intricacy within characterisation; identify each movement of an activity to improve object work; describe moments where more physicality could have been.

The ninth class is about the 'Yes And... proper'. This includes using the 'Yes And...' for the actor and not the character and following the other. The aim of the class is to demonstrate following the other actor's meta-request; practice the flow of scenes; identify personal discoveries and questions.

The tenth session is about the tone, sub-text and making active choices. This includes using the actor's tone to heighten and progress the scene. The aim of the class is to demonstrate answering the other actor's tone; practice forming interesting relationships in scenes; identify routes for scene progression within emotional states.

Session 1

Aims:

- identify practical applications of ‘Yes and...’;
- practicing engaging in play and one and another;
- and implementing support in the working environment.

Length of component	Component	Description and Instruction	Rationale	Differentiation
	Introduction	The teacher will introduce the concept of being in the class for the fun of the games and exercises and no one has to do anything, as they get to do it – if they want to . Also, they will state that, “ we accept our own and other people’s needs. We support each other. ” The teaching assistant will be introduced as a person that will help and support anyone (they are autistic and can empathise from their own experiences). Furthermore, the teacher can reinforce that they get to be in the class, no	This helps people not focus on themselves and know it is not about validation or being right or wrong.	<ul style="list-style-type: none"> • Keep the talk concise and clear

		obligation to do anything that they do not wish.		
5 mins	Names	Each person is positioned in the circle. In turn, the facilitator asks them to say their name one after the other keeping the focus on the person speaking through pointing at them. The facilitator freely implies the game continues after everyone has said so once by pointing at the initial person again. On the third go, the facilitator speeds up. On the fourth, the facilitator changes the direction by pointing in reverse order.	This sets the tone of expectations: try as you will never truly fail. Only the facilitator can; learn names; and settle into the room.	<ul style="list-style-type: none"> • Explain during the game, if needed. • Use those that can demonstrate the game in-play
10 minutes	People who	Everyone except the facilitator sits on a chair in a circle. The facilitator starts by saying, “People who...” completing it with anything	We learn about people in this game. In addition, there is the competition of trying to sit down, but the game is to learn about others – so this	<ul style="list-style-type: none"> • Demonstrate the game and sidecoach what is expected in-play (when required) • Wheelchair users will need to opt to stay in the middle – this supports the emphasis of

		<p>true about their self. The participants will arise from their seats if it is true for them too. They must change seats into an empty chair if they move (even a millimetre off their current chair). The person in the middle (initially the facilitator) tries to sit down. The person left then starts again with any statement. The facilitator can help by suggesting something that is probably true for everyone; what they like, or wearing; or very specific, because we are playing to learn about each other, anyway. If no one moves, the facilitator will congratulate the participant in the middle, as we just learnt something about them.</p>	<p>is made clear too.</p>	<p>the game's purpose (albeit removing the play of it for these participants)</p>
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10 minutes	Support	<p>The facilitator will ask everyone to get into a circle. They will state, “improv has a few fundamental requirements of us, and one of the most important is that we are here to support one and another – this is the base of everything we do! Improv works because we are always supporting one and another.”</p> <p>Passing and dropping balls MAYBE – red ball name: purposefully make it impossible, add another, etc. alike the Blind – seeming impossible task</p>	Ensemble work; play; trial and error, enjoying ‘failure’;	<ul style="list-style-type: none"> • Acceptance of the drops through enjoyment of the play
	Boundaries	<p>The facilitator will highlight (if not sent in an email beforehand – or recap it) that people have personal boundaries – we want to</p>		<ul style="list-style-type: none"> •

		support people to do improv and these classes. It would be better to avoid content on race, sex, and any prejudices. If you are every uncomfortable within a scene or watching a scene (later in the course), feel able to ask for a new scene. No questions will be asked, so please only ask for this if it is uncomfortable to watch the contents.		
15 minutes	Yes Recall	Half the class sit in a line on chairs and the facilitator suggests what happened to them collectively using questions. The facilitator prompts the group to all say, “YES!” with vigour after anything someone says. They will do this after every answer. The facilitator will prompt when	Acceptance and building on ideas (offers); never being wrong (the facilitator will combine contrary ideas through questions); playing well together; and play.	<ul style="list-style-type: none"> • Mixed ability groups • Sidecoach quieter participants to add something through directed questioning where appropriate

		<p>necessary, but will leave time for others to add to what has just been answered (before asking additional questions). Importantly, when anyone says anything it is met with “YES!”</p> <p>The facilitator will explain that the brain is what gets in our way of freely improvising. Therefore, we focus on others or the game and slow down – individuals may find other ways (but these will be personal to them).</p> <p>Afterwards, the other half of the group will play this game.</p>		
25 minutes	Yes And	<p>The participants are put into pairs through counting them down. The facilitator asks for a volunteer to demonstrate the game with them. They make a statement at</p>	<p>Acceptance and building the reality; acknowledging the reason why this approach works; and everyone plays differently (accepting the game that is happening over the</p>	<ul style="list-style-type: none"> • Promote all styles of engagement (e.g. those that are less verbal can ‘yes and’ physically) • Mixed ability groups (where possible)

		<p>the participant and tells them to say: “Yes and complete the sentence.” This goes back and forth with both starting their replying sentence with ‘Yes And’. Each pair will play out a scene with each line beginning with ‘Yes And’. The facilitator will ask people to change partners using the usual counting strategy after each scene has run for a few minutes (or as appropriate). The facilitator will state that everyone plays differently, so they are now to experience that.</p>	preconceived notion of what it is).	
10 minutes	Feedback	<p>The facilitator will offer the time left to answer any questions or state what they have learnt. The facilitator says that what you are thinking could be useful to someone else. In</p>	<p>Answering queries; sharing thoughts; and developing thinking about improvisation.</p>	<ul style="list-style-type: none"> • Provide time for all thoughts to be voiced through encouraging all thoughts as valuable for others

		<p>addition, the facilitator will state there is no obligation to speak, but the time is available. This is then followed by giving no eye contact – looking over or under people, to not suggest the expectation that any single person must ask something. Silence will happen until someone finds a question to pose (or no queries arise and it is time to move on).</p>		
	Put it into practice			•
15 minutes	BREAK	Refreshments are available, as are the use of toilets and other facilities (e.g. a smoking area).	Social and getting to know each other; resting; taking care of oneself.	
30 mins	Focus Group Questions	The research part		•

Session 2

Aims:

- create shared stories and scenes;
- practicing failing;

- and implementing support in scenes for the other actor

Length of component	Component	Description and Instruction	Rationale	Differentiation
5 minutes	Names	Each person is positioned in the circle. In turn, the facilitator asks them to say their name one after the other keeping the focus on the person speaking through pointing at them. The facilitator freely implies the game continues after everyone has said so once by pointing at the initial person again. On the third go, the facilitator speeds up. On the fourth, the facilitator changes the direction by pointing in reverse order.	This sets the tone of expectations: try, as you will never truly fail. Only the facilitator can; learn names; and settle into the room.	<ul style="list-style-type: none"> • Explain during the game, if needed. • Use those that can demonstrate the game in-play
5 minutes	What are you doing?	Everyone is asked to get into a circle. The facilitator asks one participant to enter the circle and start miming an activity. The facilitator asks	Saying anything; and never being able to fail (as the facilitator will encourage stating the first thing that comes to mind).	<ul style="list-style-type: none"> • Encourage quieter participants to ask and sidecoach the expectations (when required)

		<p>for someone else to enter and ask them: "What are you doing?"</p> <p>The participant miming will answer with something they are not doing, so anything unrelated. For example, if the first participant was cutting hair, upon being asked they may say "I'm reading the Sun newspaper". That first participant exits the middle and re-joins the circle and the second participants does the stated activity. So, as per the example, miming reading the Sun newspaper. Another participant then does the same, enters and asks, and so on.</p>		
15 minutes	Reaction and Awareness	The facilitator states that improv is only reaction and awareness .	Comprehension ; feeling at ease; setting or reducing expectations;	<ul style="list-style-type: none"> • Promote all reaction styles (less verbal to engage in

		<p>Awareness is a major reason why improv is endless, as certain productions require you to be aware of different elements; it is impossible to be aware of everything. It will change every time you improvise. Nonetheless, the participants will focus on reaction first by playing Yes And, as before, but with focus on just reacting to the other person. This will mean the yes and stated before is now being 'said' in one's mind. "You do not need to literally say 'yes, and' now; more about saying it in one's mind until you do the principle of it, keeping what it did for your scene. If you literally say it, that is</p>	<p>yes and, playing well with others; getting to the start of yes and without necessarily saying it; and play.</p>	<p>physical reactions) <ul style="list-style-type: none"> • Mixed ability groups (where possible) </p>
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		<p>okay. We ‘Yes, and’ everything.” The facilitator will ask participants to change partners through the counting approach. In addition, they will state that the yes and does not need to literally be said, but can be in the head and the rest out of the mouth.</p>		
5 minutes	One Word At A Time	<p>The facilitator will ask participants to be in a circle. Going around the circle, each person says a word that makes sense to come after the previous word spoken. This is to form a sentence. After one attempt, the facilitator will state that the grammar will ALWAYS be correct, as the group supports everything – we will make it correct together!</p>	Yes and; accept everything; playing well together; and sharing the stage.	<ul style="list-style-type: none"> • Acceptance of everyone’s input

10 minutes	One Word At A Time story	<p>The facilitator continues by asking the group now to tell a story using this game. They each say one word at a time going around the circle. The facilitator will support by asking them to say what is needed and use nouns and other important words to the story that have been used already. This is because the group does not want to tell a story for many hours, just a few minutes. They will tell a few stories.</p>	Yes and; accept everything; playing well together; reincorporation; and sharing the stage.	<ul style="list-style-type: none"> • Use clear and concise instructions • Failure criteria on making sense needs to be loose, but the instructions need to support reincorporation of the vital words to keep the story short. • Acceptance of everyone's input
10 minutes	One Word At A Time adventure	<p>The facilitator asks everyone to get into pairs using the usual approach. They are told to enact whatever is said whilst doing a one word at a time story. Further instructions that will be added by the facilitator per</p>	Yes and; accept everything; playing well together; being physical; being in the present; reincorporation; and sharing the stage.	<ul style="list-style-type: none"> • Mixed ability groups (where possible)

		<p>round of the game are to be physical and be in the present tense. The participants swap partners after each story told, so per round.</p>		
5 minutes	Failure Bow Introduction	<p>The facilitator asks everyone to stand in a line and explains that in improv the audience loves it when people fail. They will state, “we do not want to rob them of their entertainment or laughter, so fail with a smile.”</p> <p>The group will acknowledge their pretend failure with a bow; from now on, whenever someone fails they get to take a bow. They will proceed to take a bow in turn.</p> <p>Whenever some bows for their failure, everyone erupts into mass applause (deaf applause may</p>	<p>Acknowledging fail positively; and setting a game for the duration of classes.</p>	<ul style="list-style-type: none"> • Keep the talk concise and clear

		<p>be required, so the facilitator will check). The facilitator will say that anyone can prompt a bow to be taken, even if they are ‘wrong’ and failure did not occur – we embrace it all and all can bow together.</p>		
10 minutes	Questions Only	<p>The facilitator will ask for participants to get into two teams and line up facing a middle of the room, the ‘stage’. The facilitator states that in improv there are a collection of ‘die’ games that have the audience (and in the class everyone) shout die, but if the group finds this too much then the phrase can be an over-the-top ‘oh no!’ The first two participants in the queue enter the ‘stage’ and</p>	Fail with a Smile; Die game; playing the game; and shouting.	<ul style="list-style-type: none"> • Encourage quieter participants to play – encourage failure

		<p>begin a scene using only questions. The facilitator provides a location as a suggestion to base all the short scenes on. The facilitator will state that if anyone in the scene uses a statement and not a question, then everyone yells "DIE!" or the alternative. That player then bows and fails with a smile. Leaves to the back of the line. The next participant in the line enters, and, keeping the same location, starts a new scene. When everyone has failed, the facilitator will stop the bows as would be on-stage (just for the purpose of the game). At a convenience, the facilitator will mention that the DIE can be any when the</p>		
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		audience sees fit, so they may be wrong that there was no hesitation or statement, but 'we' are there for their pleasure and laughter – we die anyway, and with a smile.		
	No such thing as 'bad' improv	The facilitator uses failure to link to not 'bad' improv. The facilitator suggests there is no such thing as good or bad improv, as such. There is good theatre, good comedy – it is interesting to watch, it is funny for <i>this</i> audience. The only things that hinder your improv – make it bad – is ego, judgement and expectation, but that is only true for some forms of improv; others thrive on it (but not the what we are doing).	Knowing there are no mistakes, just opportunities; leave your worries at the door, or it could be bad for the improv;	<ul style="list-style-type: none"> • Check understanding
10 minutes	Feedback	The facilitator will offer the time left to answer any	Answering queries; sharing thoughts; and developing	<ul style="list-style-type: none"> • Provide time for all thoughts to be voiced through

		<p>questions or state what they have learnt. The facilitator says that what you are thinking could be useful to someone else. In addition, the facilitator will state there is no obligation to speak, but the time is available. This is then followed by giving no eye contact – looking over or under people, to not suggest the expectation that any single person must ask something. Silence will happen until someone finds a question to pose (or no queries arise and it is time to move on).</p>	<p>thinking about improvisation.</p>	<p>encouraging all thoughts as valuable for others</p>
15 minutes	BREAK	<p>Refreshments are available, as are the use of toilets and other facilities (e.g. a smoking area).</p>	<p>Social and getting to know each other; resting; taking care of oneself.</p>	
30 mins	Focus Group Questions	<p>The research part</p>		<p>•</p>

Session 3

Aims:

- practice heightening as making worse, making important, and generally making more of the situation and circumstance.

Length of component	Component	Description and Instruction	Rationale	Differentiation
5 minutes	Indirect questioning	The facilitator asks questions to anyone that wishes to respond on last week's session. These could include " how can we build an improvised scene together? " with the expectation that the answer resembles 'Yes And'. " What stops an improvised scene from progressing? " with the expected answer being similar to rejecting the reality of the scene that is offered (or the ideas) from your partner. Lastly, the overview of last week's session: " What is important in improv? " with a range of answers being working	Re-cap and remind participants of what they did and discovered through group recollection.	<ul style="list-style-type: none"> • Use clear and concise questioning • Encourage quieter participants to add to answers or to lead on answering

		together, saying yes to ideas, going or doing (being in action), or other answers based on last week that are noted and expected.		
5 minutes	Name Game – colours	<p>The facilitator will ask for everyone to be stood in a circle (unless seats are required or a wheelchair user). Everyone will take turns to say their name and a colour before as a ‘descriptor’. For example, lilac Luke. On the second time taking turns around the circle, it will be the same to ensure people know what they said and what others used. However, on the third round, participants say the person’s colour and name whom is next to them. Lastly, the fourth round has the participants say their own name and then pass to another participant by saying their colour and</p>	Learn names; be silly; and build energy.	<ul style="list-style-type: none"> • Explain during the game, if needed. • Use those that can demonstrate the game in-play

		name. For example, lilac Luke to grey Anna-Toni.		
10 minutes	I am a tree	The facilitator will gather everyone to one side and ask a participant to enter the 'stage area' and state, "I am..." finishing the remark with anything, whilst embodying what they stated. A second participant then enters and adds another thing to the image and says it, "I am..." The third , and last, person enters to complete the image , "I am..." The first person then states whom will be kept by saying, "Keep..." That person restates what they are, "I am [same thing]."	Connecting thoughts; imagination; embodying objects and ideas; accepting and building; playing with sense of humour; following interests; and getting to know each other.	<ul style="list-style-type: none"> • Explain during the game, if needed. • Use those that can demonstrate the game in-play • Encourage quieter participants and sidecoach the expectations (when required) • Less verbal can embody it and someone else say it (if possible)
10 minutes	60 second to die	The facilitator will ask participants to swap partners and find a new pair. The facilitator tells them that one person has to die in their scene and	Live in the present; play the game; justification; scenework; playing well together; and everyone plays differently.	<ul style="list-style-type: none"> • Mixed ability groups (where possible) • Set up challenges for quieter participants by their scene partner dying quickly

		<p>within 60 seconds. They also state the scene ends at 60 seconds only! They must fill up the scene with explanation of why someone is killed or similar, if someone dies before the 60th second.</p> <p>The facilitator will give the countdown (only 30 seconds, 15 seconds, 10 seconds, and 5 seconds) as warnings.</p> <p>Once they tried it once, the facilitator points to every group (most likely) to say that they were not dead by 60 seconds. If this is not the case, then they only state who did not manage it, as well as suggesting that it is what usually happens. In addition, stating, “this is a challenge to do it this time and not put the death off until later. This is termed shelving.” (An</p>	<p>(hidden objective for the partner); however, provide a reciprocal challenge for the partner of the quieter participant afterwards</p>
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		<p>idea that is left to be used later) For example, they will die later—but they should try not to postpone what has happened or not to avoid the death. They will switch partners after each round.</p>		
10 minutes	Heightening – make worse	<p>Participants will practice scenework using three ways of heightening; eventually, these will merge as a singular tool of making more of whatever is going on. The facilitator will ask participants to get into pairs in the usual manner. The facilitator will say two things, one, “The technique is called heightening, you may find an alternative word easier, for example escalating the situation” and second, “Making the situation worse for one character is</p>	<p>Sustaining a scene; comedic intent; playing well together; and awareness of the contents of the scene.</p>	<ul style="list-style-type: none"> • Mixed ability groups (where possible) • Those that struggle should be supported and facilitator should accept the difficulty and open it up to others (in intro to making worse).

		<p>classic British comedy. Some people may not find this humour funny, but you can learn to do so for those that do.”</p> <p>Firstly, in the facilitator will give a line of dialogue and each person will respond with something that makes it worse for one character (e.g., “Jilly, my leg looks gangrenous.” Or “Doc, doc, your wife is in the cupboard with nurse flavour.” Or “Carry me Benson, I feel weary.” Or “Oh Frank, you have to have the car keys to get in the car, dear.”</p> <p>Then, they will:</p> <ul style="list-style-type: none"> • ‘Make worse’. In this scene, the pairs will work together as actors to construct classic British comedy, as one character will have something bad happening, so both actors jointly get to 		
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		make the situation or 'thing' worse. After each scene, they swap partners and try again with someone else. This uses the same pairing approach as usual.		
10 minutes	Heightening – make important	Next, after a few short scenes, the facilitator uses the same lines as before to ask for responses again, but now make it important (this time anyone can answer): “For example, ‘Jilly, my leg looks gangrenous.’ ‘Sorry, Billy, looks like the Olympics will have to wait this time.’ ‘So, who can reply making it important for ‘Doc, doc, your wife is in the cupboard with nurse flavour.’” “And now ‘Carry me Benson, I feel weary.’” And now ‘Oh Frank, you have to the car keys to get in the car, dear.’”	Sustaining a scene; comedic intent; playing well together; and awareness of the contents of the scene.	<ul style="list-style-type: none"> • Mixed ability groups (where possible)

		<p>The facilitator will highlight these are only exercises and opportunities to learn, so we try to do this more often to practice it.</p> <p>In a new pair:</p> <ul style="list-style-type: none"> • ‘Make important’ has the pairs specify in dialogue why whatever happens is important. They state the reasons inside the scene as and when it can happen, but as frequently as possible to try doing so. They swap pairs, as usual, to try it with other participants. 		
15 minutes	Heightening – make more	<p>Lastly, in a new pair using the usual approach, they:</p> <ul style="list-style-type: none"> • ‘Make more’. In this scene, the participants have simply to make more of whatever is happening. This open approach can provide the scene with anything being heightened to be used and of which is made more. 	Sustaining a scene; comedic intent; playing well together; and awareness of the contents of the scene.	<ul style="list-style-type: none"> • Mixed ability groups (where possible)

5 minutes	Feedback	<p>The facilitator will offer the time left to answer any questions or state what they have learnt. The facilitator says that what you are thinking could be useful to someone else. In addition, the facilitator will state there is no obligation to speak, but the time is available. This is then followed by giving no eye contact – looking over or under people, to not suggest the expectation that any single person must ask something. Silence will happen until someone finds a question to pose (or no queries arise and it is time to finish).</p>	<p>Answering queries; sharing thoughts; and developing thinking about improvisation.</p>	<ul style="list-style-type: none"> • Provide time for all thoughts to be voiced through encouraging all thoughts as valuable for others
5 minutes	Heightening for Audience (all) !!!	<p>Participants will present scenework using any of the three ways of heightening as they will have merged as a singular tool of making more of whatever is going on.</p>	<p>Sustaining a scene; comedic intent; playing well together; and awareness of the contents of the scene.</p>	<ul style="list-style-type: none"> • Mixed ability groups (where possible)

		The facilitator will state that, “We will continue this topic next week, as it is important in improv. So in this you will present a short scene using heightening based on your experiences today.”		
15 minutes	BREAK	Refreshments are available, as are the use of toilets and other facilities (e.g. a smoking area).	Social and getting to know each other; resting; taking care of oneself.	
30-40 mins	Focus Group Questions	The research part		•

Session 4

Aims:

- demonstrate emotional integrity in the scene;
- state what was interesting or enjoyable about other people’s performance

Length of component	Component	Description and Instruction	Rationale	Differentiation
5 minutes	Indirect questioning	The facilitator asks questions to anyone that wishes to respond on last week’s session. The first question can be an overview of the past few week’s session: “What is important in improv?” with a range of answers being working together, saying yes to ideas, going or doing (being in action), or other answers based	Re-cap and remind participants of what they did and discovered through group	<ul style="list-style-type: none"> • Use clear and concise questioning • Encourage quieter participants to add to

		on last week that are noted and expected. Another question can be: “What stops an improvised scene from progressing?” with the expected answer being similar to rejecting the reality of the scene that is offered (or the ideas) from your partner.	recollecti on.	answers or to lead on answering
5 minute s	Name Game – colours	The facilitator will ask for everyone to be stood in a circle (unless seats are required or a wheelchair user). Everyone will take turns to say their name and a colour before as a ‘descriptor’. For example, lilac Luke. On the second time taking turns around the circle, it will be the same to ensure people know what they said and what others used. However, on the third round, participants say the person’s colour and name whom is next to them. Lastly, the fourth round has the participants say their own name and then pass to another participant by saying their colour and name. For example, lilac Luke to grey Anna-Toni. 10	Learn names; be silly; and build energy.	<ul style="list-style-type: none"> • Explain during the game, if needed. • Use those that can demonstrate the game in-play
5 minute s	I am a tree	The facilitator will gather everyone to one side and ask a participant to enter the ‘stage area’ and state, “I am...” finishing the remark with anything, whilst embodying what they stated. A second participant then enters and adds another thing to the image and says it, “I am...” The third, and last, person enters to complete the image, “I am...” The first person then states whom will be kept by saying, “Keep...” That person restates what they are, “I am [same thing].”	Connecti ng thoughts; imaginati on; embodi ng objects and ideas; accepting and building; playing with sense of humour; following interests; and getting to know	<ul style="list-style-type: none"> • Explain during the game, if needed. • Use those that can demonstrate the game in-play • Encourage quieter participants and sidecoach the expectations (when required)

			each other.	<ul style="list-style-type: none"> • Less verbal can embody it and someone else say it (if possible)
10 minutes	Open Gift	<p>The facilitator asks everyone to be in a circle. They state that he has everyone some imaginary presents. Furthermore, that the first round of presents will be a low level of a stated emotion (e.g., happy) and each round will be increasingly that emotions (so, per example, happier). The third round is the most of that emotion possible. The facilitator gives a specific shape, texture and weight space object (mimed) as the present that (obviously) is wrapped. In turn, each participant unwraps their present with the level of emotion according to the round. When opening the present, the participant reacts and states what it is to everyone.</p> <p>The facilitator reminds everyone before the round what level of emotion with which they will be reacting.</p>	Reactions ; emotional response; heightening; specificity and labelling; and object work.	<ul style="list-style-type: none"> • Encourage everyone, but especially quieter participants, to state something and sidecoach the expectations (when required)
10 minutes	Emotional Heightening	<p>The facilitator asks people to get into groups of fours. Two participants will watch and the other pair will play out a scene. The facilitator provides an emotion for each actor to use; they will increasingly portray the emotion to a higher degree over the scene's progression. The facilitator will need to warn them that this game can become loud in the end – in a chaos of sound.</p> <p>This provides comedy quickly. Then, the pairs are asked to switch over, so they can perform a scene to the other two participants with</p>	Reactions ; emotional response; heightening; performing for an audience; scenework; and playing.	<ul style="list-style-type: none"> • Mixed ability groups (where possible) • Provide a quieter space for those that need it, and a quiet room if needed (where the game is not being played).

		<p>new emotions (from the facilitator).</p> <ul style="list-style-type: none"> • http://improvglasgow.co.uk/improv-suggestion-generator/ (emotions suggestions) • Two scenes in breakout rooms – end the scene for this exercise, when you have reached the maximum of that emotion, then do a new scene • Upon switching, the facilitator will join a room and watch the scene to sidecoach for more of the emotion (as and when possibly needed). • The facilitator may enter a room when a scene is going on and begin to sidecoach a scene. • Goal: To experience using emotions in scenes • This is just an exercise. We are escalating one emotion in each character. 		
10 minutes	Open Scene	<p>In new pairs, which the facilitator uses the usual approach to accomplish, the participants create a scene. They are asked to react emotionally to whatever the other says or does. Afterwards, the facilitator will ask participants to swap partners using the counting approach. Dependent on the time taken to improvise each scene, the facilitator will end everyone’s scene simultaneously. This will naturally occur 2– 3 times, according to how the group sustain their scenes. The longer, the better, so they can play with whatever happens.</p> <ul style="list-style-type: none"> • Goal: One goal is to practice using emotions in a scene 	Reactions ; emotional response; heightening; being in response; initiating; scenework; and playing.	<ul style="list-style-type: none"> • Mixed ability groups (where possible) • Promote all reaction styles (less verbal to engage in physical reactions)

		<ul style="list-style-type: none"> • Boundaries of content are up to the pair playing together. Common things you will want to avoid in scenes are that most people do not like playing racists. Avoid racism. In classes, you will want to avoid prejudices, generally. Sexual content is boring to do in the end. Some people will also feel uncomfortable. 		
5 minutes	Open Scene – for audience	<p>The facilitator will ask for everyone to sit down in provided seats (placed in a row before the ‘stage’). The two volunteers that are asked for will perform the open scene exercise for an audience. They are asked to react emotionally to whatever the other says or does. This scene will last as long as it does before the facilitator calls the end of it. There will be time for one or two pairs to volunteer. The facilitator should run the next activity between each pair, so everyone can learn what worked and what did not.</p> <ul style="list-style-type: none"> • Goal: Two goals here are to heighten the emotion, and another is to react. So you can change emotions because you react, let the emotions drive the scene. • Audience: You will be asked to offer positive feedback after the performers have spoken. Please watch and learn from what other people do. 	Reactions ; emotional response; heightening; being in response; initiating; performance; scenework; and playing.	<ul style="list-style-type: none"> • Mixed ability groups (where possible) • Promote all reaction styles (less verbal to engage in physical reactions)
5 minutes	Directed questioning	<p>The facilitator will ask and give time for the performers to answer these questions at their pace. This will occur between each pair doing the last activity. The questions are “Did you heighten</p>	Reflection; discovering how the individual	<ul style="list-style-type: none"> • Provide time for all thoughts to be voiced

		the emotions?” and “Did you react to the moment?”	Is improvise; and thinking about how they each improvise and what they may or could try to do next.	through encouraging all thoughts as valuable for others
5 minutes	Audience feedback and observations	The audience provides positive feedback after all volunteer pairs have improvised a scene. The only proposed question the facilitator provides is “what was interesting or what did you enjoy?”	Reflection; discovering how the individuals improvise; contemplating and discovering how improv works for the others; and thinking about their approach to improvisation; and what they may or could try to do next.	<ul style="list-style-type: none"> • Provide time for all thoughts to be voiced through encouraging all thoughts as valuable for others
10 minutes	Revelation	The facilitator uses the usual approach to get everyone into pair. They are to practice playing out improvised scene set at a place of eating. They are instructed to make the sort of place it is clear	Reactions; justification; playing a scene;	<ul style="list-style-type: none"> • Mixed ability groups (where possible)

		<p>(large fancy dining room or in a tiny grotty home; McD or the Ritz). The facilitator states that during this scene they will have revelations. They tell participants that a revelation is <i>only so due to the reaction: it is always the second person that matters - the reaction.</i> For example, little reaction to a pregnancy is not a revelation, whereas a huge reaction to broken pencil is a big revelation.</p> <p>Afterwards, the facilitator asks everyone to swap partners using the usual approach. They state that this place of food will be very different to your last (this is intentional provocation, as they need to work well with their partner who has not just been in the same imagined place as themselves).</p> <ul style="list-style-type: none"> • Goal: one goal is to explore having emotional reactions at anything and seeing what that does for your scene. 	<p>specificity and clarity; playing well with others; and mime or object work.</p>	
15 minutes	BREAK	Refreshments are available, as are the use of toilets and other facilities (e.g. a smoking area).	Social and getting to know each other; resting; taking care of oneself.	
30-35 mins	Focus Group Questions	The research part		•

Appendix F: Further Research on Monotropism

Further studies report relevant information regarding monotropism: Keay-Bright (2007) discuss the use of interest-centred interventions providing a safe way for autistic children to express their fascinations. Qualitatively, monotropism has been determined by the effect on reducing capacity for other engagements (i.e., social interactions) (Wood & Milton, 2018), and how autistic children find time scarce and need to focus on their interests, engage in flow, experience task inertia (i.e., not within their interest) and disruption of their plans (Poole et al., 2021). Broader work has identified relevant findings fitting this theory in experimental research (Belmonte, 2000; Boeschoten et al., 2007; Burrows et al., 2021; Courchesne et al. 1994; Goldstein et al., 2001; Hand et al., 2022; Landry & Bryson, 2004; Russo et al., 2010; Sansosti et al., 2013; Turner-Brown et al., 2011). For an autoethnographic consideration on monotropism, see Gillespie (2017).

There has been application of the theory with further discussion and evidence. In the white paper, Wassell & Burke (2022) discuss how monotropism explains starting and stopping (executive functioning), inertia, and transitioning. All of which link well to the ability to hyperfocus. Qualitatively, Bertilsdotter-Rosqvist et al. (2020) found that participants experienced intense flow (or tunnelled attention) when writing, which is the same as Pavloupoulou et al. (2022) who qualitatively found autistic intense focus (and related it to self-care). The theory further explains (as stated by Wassell & Burke, 2022) the disconcerting feeling of being removed from the ‘attention tunnel’, which is normatively perceived

as a loss of control. A non-autistic person may have this sense, but the theory of monotropism explains why it is more greatly impactful for autistic people. Buckle et al. (2021) discusses monotropism to be synonymous with inertia, being well explained by autistic experience (in their focus group study). Wassell & Burke (2022) clearly identify how this links to demand avoidance and meltdowns. This is noted in Lawson (2020), he identifies various aspects of the participants' lives in-line with monotropism (i.e., survival, and adaptive morphing).

In their book, Fletcher-Watson & Happé (2019) identify that monotropism explains the social differences of autistic people, stating that normative social interactions require wide-spread and distributed attention. They further identify how sensory overwhelm (hyper-) or being ignored (hypo-sensitivity) could occur from monotropic minds not integrating sensory information, which is further illustrated in Orekhova & Stroganova (2014), Stroganova et al. (2014), Kuiper et al. (2019), Iarocci & MacDonald (2006), and Robertson & Simmons (2015). Mongillo et al. (2008) identify that audiovisual speech processing correlates with the differences in social interaction, which Dindar et al. (2022) furthers with their study on social pragmatics. Fletcher-Watson & Happe (2019) state the processing difference from the monotropic mind explains the gross motor skills and movement (i.e., dyspraxia) and development of specialised skills, and issues with change for autistic people.

Language literalisms, regression and comprehending facial expressions can be explained by the monotropic mind (Ravet, 2011). This has

previously been partially explained by an older understanding of central coherence (being that of only local processing), yet a better understanding of central coherence would render this moot.

As Prof Nickie Shaughnessy (2022) states, in a project called ‘Imagining Autism’ completed in UK schools, they became increasingly more aware of the need to use an interest-led approach. Additionally, Wood (2021) discusses how monotropism is demonstrable in school settings (empirical, mixed methods design); furthermore, with this positive account of autistic children, there can be effective gains for their learning and supports use of coping strategies. Similarly, Istuany & Wood (2020) found the comparable findings in Chile. More regarding this can be found in two books from Wood in 2019 and 2022 regarding autistic education. This is further supported by Dr Julie Leatherland’s PhD thesis (2019) (empirical, mixed methods design), with further identification in regards to monotropism from others, such as Dr Melanie Howell’s PhD thesis (various methods, including observational design and focus group), Dr Stephen Connolly’s PhD thesis (2020) (emancipatory research), Dr Sarah Clemenson’s PhD thesis (qualitative studies), and Alison Taylor’s master’s dissertation (multiple methods: document analysis, non-participant observation and semi-structured interview).

Pearson & Rose (2019) discusses how Monotropism may be an integral part of identity formation and self-presentation (as a theoretical link to masking). In addition, Ridout (2021) applied the theory of monotropism in their book about recovery, focusing on autistic trauma and healing.

Moreover, the underlying component of monotropism (i.e., interest systems) has been applied to Mantzalas et al. (2021) to explain the importance of this autistic ontology (to recover from burnout).

Based on work from Murray and colleagues in 1990s, there is a lot of work on computers based on monotropism – but this does not evidence it, as such, but applied the theory.

Appendix G: Case Example

Even without an outsider identity, agents can ostracise individuals. Thus, even in improv, hatred and segregation can occur no matter the influence of its philosophy and practice. The impact of social media, or just deep-seated, segregatory factors may undermine the co-creative, collaborative processes.

As a case example to exemplify the possibility of this, an unfortunate miscommunication led to ‘lynch-mob’ mentality, which was worsened by an online community of improvisers (including those with local standing and global reputation helming this onslaught). As found on an open, public social media platform, a white American improviser in their 40s with vast improv experience (person A) had requested information from an emigrated American to a European country (person B) about setting up their improv theatre; however, due to a potential lack of politeness within this dialogue, communication broke down and ended up in name-calling (it was later explained that an intern had replied). The emigrated improviser (person B) launched a social media campaign against person A and incited the world against him. In this case example, those well-known and highly regarded teachers did not use acceptance and understanding to rekindle a positive relationship using a restorative approach; they promoted hatred. The actions of the many were against the teaching and philosophy of improv, and the types of people that improv attracts or requires (as per this study). Furthermore, these behaviors were presented without an outsider identity. Such incidents can be common on social media (Choon-Ling, et al., 2002) and it could be that group polarization (Myers & Lamm, 1976) was an aspect of why this occurred; people felt a need to agree with the masses, and with those with

authority in the community without thought or consideration. Thus, this opposes the findings in this study (e.g., improvisers are lovely, loving and caring people), identifying the prospects that othering is still possible in improv.

The proposition is that no matter who you are, you could be victimized in improv due to the availability for people to ostracize, which is accelerated with improv being a global community through online access to those other people. The teachings behind improv should challenge preconceptions, implore restorative approaches between people, request people to re-evaluate their communication, and identify themselves in relation to social progression. Yet this did not occur in this circumstance.

Appendix H: Information sheets and consent forms

The value of participating in improv comedy across populations using the Nathan Improv Comedy Survey (NICS)

Information for participants

About the project

This study aims to examine the value of participating in improv comedy across populations all around the world. The new survey was developed following literature-based research on studied practices of improvisational theatre and comedy. Keates developed a new improv comedy measure that captures the current established values of the art forms in terms of impact on personal experiences and development. This developing survey will be important in future research as it is the first of its kind to test improv comedy in this way. Therefore, we will be able to map differences of its value through comparing results from around the world.

Why are you being invited to participate?

In order to obtain the value of improv comedy, we need as many people as possible to complete the survey. We have asked people involved with improv comedy to help us with this and so that is why you are receiving this invitation.

What will I need to do if I agree to participate?

If you agree to take part, all you have to do is to click the link at the end of this e-mail. You will see some of this information again to remind you what will happen with any information you provide and then you will click the link to start the survey. By submitting the survey at the end, you are consenting to the information you have given being used in the research.

Once you start the survey, you will be asked to think about your participation in improv comedy and how you value it. You will not be asked to provide any identifying information but will be asked a few questions about your characteristics.

The survey should take approximately 10-15 minutes to complete.

Do I have to take part?

No, participation is voluntary. Not doing so will have no effect on your involvement in improv comedy. Once you submit the survey, you will have no option of retrieving the information as the survey responses will be completely anonymous.

What will happen with the information I provide?

The information you enter in the survey will be transferred straight to a datafile that is held securely on encrypted and password protected servers and computers

at the University. No identifying information will be collected and each survey returned will be identified only by a numeric code.

The data will be analysed and used in a number of ways:

- A student thesis
- Several reports and academic papers
- Conference presentations

What if I have questions or want to give feedback

If you have any questions about the research either before you participate or afterwards, please contact either Nathan Keates (nk411@kent.ac.uk) or a research supervisor Prof. Julie Beadle-Brown (j.d.beadle-brown@kent.ac.uk) or Dr. Shaun May (s.r.may@kent.ac.uk).

If you would like to send feedback about how the research was conducted or are unhappy about anything to do with the research you can also contact Julie or can contact the Secretary of the Tizard Ethics Committee (j.ruffels@kent.ac.uk).

Thank you so much for considering our request for your participation. If you are happy to complete the survey, then please click on the link below to continue.

INSERT QUALTRIX LINK HERE

The value of participating in improv comedy across populations using the Nathan
Improv Comedy Survey (NICS)

Front page of the Survey/Consent form

- I confirm that I have read and understood the information letter sent to me;
- I understand that my participation is voluntary, that I do not have to give any reason for not participating and that not participating will not affect my involvement in improv comedy, or legal rights;
- I have had an opportunity to ask questions and these have been answered to my satisfaction;
- I understand that once I submit the survey I cannot ask for my information to be withdrawn as all data is anonymous;
- I understand that the findings from the research will be used in a student thesis and in a variety of reports, academic papers and conference presentations;
- And I am happy to participate in the study.

Please click NEXT to continue.

URL: www.kent.ac.uk/tizard/

PARTICIPANT INFORMATION SHEET

Exploring the benefits and impact of participation in improv comedy and lived experiences on anxiety

About the project

This study aims to explore anxiety and lived experiences between autistic and non-autistic people with improv comedy training and/or involvement. Participants will be asked about:

- their life experiences before and after participating in improv comedy;
- what makes an improviser easy to improvise with;
- fitting into the world;
- and their thoughts about the benefits of improv (if any).

Importantly, there will be questions about any unpleasant experiences in improv and how that impacted them and their involvement in improv. Participants should expect to be asked to partake in multiple interviews to refine the topics of interest and further discussions based on previous interviews from all involved.

Why are you being invited to participate?

In order to find out the effects and benefits of autistic adults participating in improv comedy, we need to get an in-depth understanding of their experience. To compare this to non-autistic people (including other neurodiverse people), we are inviting these population to participate too. This is why you are receiving this invitation.

What will I need to do if I agree to participate?

If you agree to take part, all you have to do is fill-in and return the consent form below. You will participate in an initial interview, which will be done at your convenience and solely online. Further interviews may take place to follow-up on findings with more questions of interest. The research is fully compliant with social distancing and you will not need to meet anyone in-person. The interview will ask you to think about your experience in participating in improv comedy. The questions will be about what you gained and whether you benefitted from participating, and any bad experiences. Additionally, the interview will ask you about your life, whether you feel you have tried to not seem autistic, and how this may or may not have changed. Obviously, non-autistic people will not be asked this line of questions.

Non-verbal people will be able to participate through text-based interactions.

These will be made available upon request.

You may participate in this study when you feel ready. The interviews will take between 45 to 60 minutes each.

You can return the form directly to Nathan via email to:

Nk411@kent.ac.uk

Do I have to take part?

No, participation is voluntary. Not doing so will have no effect on your involvement in other events. Once you return the filled-in consent form, you are able to arrange a date for an initial interview and complete a questionnaire about your demographic information. Once interviews begin, it is okay if you only want to take part in some questions – you can say so in the interview at any point.

If you think you won't like participating, you can decline. Not taking part is okay. You are the only person who can decide if you want to agree or decline to participate in the research. No one else can tell you what to say. If you agree now, you can change your mind whenever you want to.

What will happen with the information I provide?

The information you provide will be transferred straight to a datafile that is held securely on encrypted and password protected servers and computers at the University. No identifying information will be collected, and all data will be identified only by a numeric code.

What you tell us will not be said to anyone unless we think someone might be hurt. If so, we will talk to you first about the best thing to do.

The data will be analysed and used in a number of ways:

- A student thesis
- Several reports and academic papers
- Conference presentations

What if I have questions or want to give feedback

If you have any questions about the research either before you participate or afterwards, please contact either Nathan Keates (nk411@kent.ac.uk) or a research supervisor Prof. Julie Beadle-Brown (j.d.beadle-brown@kent.ac.uk) or Dr. Shaun May (s.r.may@kent.ac.uk).

If you would like to send feedback about how the research was conducted or are unhappy about anything to do with the research, you can also contact Julie (email above).

Thank you so much for considering our request for your participation. If you are happy to join the study, then please complete the consent form below.

Yours Sincerely,

Nathan Keates

Email: nk411@kent.ac.uk

URL: www.kent.ac.uk/tizard/

Consent Form

Exploring the benefits and impact of participation in improv comedy and lived experiences on anxiety

Please tick or mark each bullet point with an x if you agree.

- I have read the information sheet about the study and fully understand what is being asked of me.
- I understand that I shall complete a demographics questionnaire and that I will be asked questions about my life before and after improv comedy.
- I understand that my name will not be used in any reports, papers or presentations.
- I understand that I don't have to participate in any part of the study and even if I say yes now I can change my mind later.
- I understand that I can say no to any of the interviews.
- I understand that the interviews will be recorded.

I would like to take part in the improv comedy study (sign below)

Your name Date Signature

Researcher's name Date Signature



Nathan Keates

Email: nk411@kent.ac.uk

URL: www.kent.ac.uk/tizard/

PARTICIPANT INFORMATION SHEET

Evaluating an improv comedy intervention for an autistic population: a pilot study

About the project

This study aims to ask autistic people about the necessary alterations of an improv comedy class to be suitable for future groups. The class was developed based on previous practice of teaching improvisational theatre and comedy for autistic people and consultation with autistic people. Participants will be requested to provide evaluation of the class. This will help its development for future research in Nathan Keates' PhD. Therefore, we will be able to form the needed adjustments for further classes for autistic adults.

Why are you being invited to participate?

In order to find out the best way to practically deliver improv comedy, we need autistic people to complete the evaluation of the class in the Autscape conference. We have asked the organisers for permission to setup the class at the conference with the intention of getting your views. This is why you are receiving this invitation.

What will I need to do if I agree to participate?

If you agree to take part, all you have to do is complete the consent form below and attend the class. Afterwards, you will need to complete the evaluation in your own time. The form will ask you to think about how effective the improv comedy class was run and what was easy and difficult for you. You will not be asked to provide any identifying information.

You can return the form directly to Nathan at the conference. Alternatively, you can email or post the form back to:

Nk411@kent.ac.uk

or

Nathan Keates,

Tizard Centre,

Cornwallis East,

University of Kent,

Canterbury

CT2 7LR

The survey should take approximately 5-10 minutes to complete.

Do I have to take part?

No, participation is voluntary. Not doing so will have no effect on your involvement in the class or the conference. Once you return the completed survey, you will have no option of retrieving the information as the evaluation responses will be completely anonymous.

What will happen with the information I provide?

The information you enter in the evaluation will be transferred straight to a datafile that is held securely on encrypted and password protected servers and computers at the University. No identifying information will be collected and each evaluation returned will be identified only by a numeric code.

The data will be analysed and used in a number of ways:

- Adjust the class for future use
- A student thesis
- Several reports and academic papers
- Conference presentations

What if I have questions or want to give feedback

If you have any questions about the research either before you participate or afterwards, please contact either Nathan Keates (nk411@kent.ac.uk) or a research supervisor Prof. Julie Beadle-Brown (j.d.beadle-brown@kent.ac.uk) or Dr. Shaun May (s.r.may@kent.ac.uk).

If you would like to send feedback about how the research was conducted or are unhappy about anything to do with the research you can also contact Julie or can contact the Secretary of the Tizard Ethics Committee (j.ruffels@kent.ac.uk).

Thank you so much for considering our request for your participation. If you are happy to complete the evaluation form, then please complete the consent form below.

Yours Sincerely,

Nathan Keates



Email: nk411@kent.ac.uk

URL: www.kent.ac.uk/tizard/

Consent Form

Evaluating an improv comedy intervention for an autistic population: a pilot study

- I have seen the information sheet about the study and fully understand what is being asked of me.
- I understand that I shall be asked questions about the improv comedy class that I attended.
- I understand that my evaluation will be anonymous. Only Nathan and his supervisors will have access to my answers.
- I understand that I am free to refuse to take part in the study and that I can complete all aspects of the form that I wish.

I would like to take part in the study

Your name Date Signature

Researcher's name Date Signature

PARTICIPANT INFORMATION SHEET

**Participating in an improv comedy intervention for autistic adults:
exploring the benefits and impact on anxiety**

About the project

My name is Nathan Keates and I am a PhD student at the University of Kent. I am also an improv teacher. My research aims to explore the effects autistic adults experience when they participate in improv comedy classes. I am particularly interested in the impact participating in the classes might have on levels of anxiety, tolerance of uncertainty, and any other benefits people experience, as well as people's views about the classes more generally.

I would like to invite you to participate in the study. In order to help you to decide whether you would like to participate, I have provided some information about the project below.

What is improv comedy?

Improv comedy is short for improvised comedy. The comedy part means that we will laugh with each other by what we do and say together, and improvised means that we will be creating stuff through performance in the moment, rather than working from a script. To help with this, we will use games such as ‘Yes And’ and ‘One Word at a Time – Story’. In improv comedy, groups of people perform live scenes, creating the storyline as they go. Improv comedy uses games (both planned and spontaneously created) to create and develop these story lines.

What would happen if you say yes?

If you say yes, you will be allocated to small online class based on your location (Kent, UK; elsewhere in the UK or GMT time zone; other time zone-oriented group).

All participants will attend the online classes that run for four sessions. This is the short ‘Introduction to Improv Comedy’ course for anyone around the world.

The classes will be run online and will be taught by a very experienced instructor. Classes will run for 4 weeks and each class, including the focus group discussions, will last for approximately 2 hours. There will be a break during each class. Online classes are likely to have technical difficulties that the teacher will help others overcome. Start times will be the same each time, but we will ensure everyone is in the online classes first (e.g. it may take up to 15 minutes to make sure everyone is present). This means the end time may not be exact; please take this into consideration when planning anything afterwards. There will be no charge to attend the classes.

Those that participate will be asked to be in the class for the fun of the games and exercises and focus on supporting each other. However, if you need to, you will be able to take additional breaks during the classes.

You will be asked to complete a number of measures:

1. An electronic (online) questionnaire asking about anxiety and uncertainty in your life, as well as demographic information. You will complete this twice, once before the classes and once afterwards. The questionnaire should take approximately 30-35 minutes to complete.
2. Each week during and after the class you will be asked to participate in focus groups (or group discussions) with the people in your class – these will be recorded. This should only take you around 30-45 minutes to complete, except the last focus group after the final class (longer time may

be needed, but additional breaks will be used). The purpose of these focus groups supports the development of the classes to better meet the needs of autistic people.

3. After each class, you will complete a log-form too. The log-form is similar to a diary (a reflection on your experience of the class). They can be completed online, via email or by voice recording to best suit your needs. The log-forms and focus groups will use the same questions each week. The log-form will take 10 – 30 minutes depending on the amount people wish to contribute (whether short, yet detailed or at-length and fully detailed) to their reflection.
4. After the whole course has finished, the last focus group and log-form will ask different questions. Along with the log-form reflection, you will be asked to complete the same questionnaire as before the course. These will ask about what you think about the improv comedy classes, whether you benefitted from participating, moments you felt anxious, times you recall laughing and any moments that were less enjoyable. This focus group will also be recorded.

You will be able to submit log-forms as a voice recording if you need or wish to do so. You will be told how to do this once you request to provide your reflections this way.

At the end of the four weeks those who live in Kent or are willing to commute to Canterbury will be asked whether they would like to receive information about the second part of the Improv comedy programme – a six-week ‘Improv Comedy

for Beginners' course. This course would be conducted in Canterbury and would be in person but follow government guidance about social distance. Currently, due to COVID-19 restrictions, we cannot currently recruit to this course but once this becomes possible, we would send out the information sheets and consent forms to those who have expressed interest.

What should I do if I want to participate?

If you decide you would like to take part in the research then you will find a consent form attached.

You can return the form directly to me via email the form back to:

Nk411@kent.ac.uk

Do I have to participate?

No, participation is voluntary. Not doing so will have no effect on your involvement in other events. If you think you will not like participating, you can say no. Not taking part is okay. You are the only person who can decide if you want to participate in the research. No one else can tell you to participate.

During the classes it will be okay if you only want to take part in some games and exercises. A break will be provided in every class but if you need another break during the classes that will be okay.

Even if you decide to take part in the classes, you don't have to answer any questions you do not wish to answer of the focus groups and log-form. If you say yes now to any part of the study, you can change your mind at any point before the start of the course, during the course and after the end of the course. As all identifying information will be removed from any information that we gather from you, it will not be possible to withdraw after the information has been anonymised and the analysis has begun.

What will happen with the information I provide?

What you tell us will not be said to anyone unless we think you, or someone else you talk about, are at risk of harm. If this happens, I will need to talk to my supervisor to decide whether we need to tell someone else. We may ask to talk to you again. If we have to tell someone else, you will be informed about this.

All information provided on paper will be stored securely in a locked cabinet. All information gathered electronically will be anonymised and identified only by a

numerical code or pseudonym. Data will be password protected and stored on encrypted hard drives and secure servers.

The data will be analysed and used in a number of ways:

- A student thesis
- Several reports and academic papers
- Conference presentations

Your name will not be used in any reports or presentations.

What if I have questions or want to give feedback

If you have any questions about the research before or after you participate, please contact either Nathan Keates (nk411@kent.ac.uk) or my research supervisors, Prof. Julie Beadle-Brown (j.d.beadle-brown@kent.ac.uk).

If you would like to send feedback about how the research was conducted or are unhappy about anything to do with the research, you can also contact Julie (email above) or can contact the secretary of the Tizard Ethics Committee (e.lukehurst@kent.ac.uk).

Thank you so much for considering our request for your participation. If you are happy to join the study, then please complete the consent form below.

Yours Sincerely,

Nathan Keates

Email: nk411@kent.ac.uk

URL: www.kent.ac.uk/tizard/

Consent Form

Participating in an improv comedy intervention for autistic adults: exploring the benefits and impact on anxiety

- I have read the information sheet about the study and fully understand what is being asked of me.
- I understand that I shall complete questionnaires about how anxious I am feeling and that I will be asked questions about the improv comedy class that I attended each week.
- I understand that my name will not be used in any reports, papers or presentations.
- I understand that I don't have to participate in any part of the study and even if I say yes now I can change my mind later.
- I consent to being recorded during the focus groups.

I would like to take part in the online improv comedy course

Yes

No

Your name

Date

Signature



STAI_Q1_7	1	LSAS_Q2#1_7	4	IU_Q1_7	5	Post_STAI_Q1_15	3	Post_LSAS_Q2#1_7	4	Post_IU_Q1_7	5	LSAS_PERFavoid	.0	21
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STAI_		LSAS_Q		Post_STA		Post_LSAS			
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STAI_		LSAS_Q				Post_LSAS			
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STAI_		LSAS_Q				Post_LSAS			
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STAI_		LSAS_Q				Post_LSAS			
Q2_18	4	2#2_14	1			_Q2#2_14	1		
STAI_		LSAS_Q				Post_LSAS			
Q2_19	2	2#2_15	1			_Q2#2_15	1		
STAI_		LSAS_Q				Post_LSAS			
Q2_20	1	2#2_16	1			_Q2#2_16	1		

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LSAS_Q			Post_LSAS	
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LSAS_Q			Post_LSAS	
2#2_23	3		_Q2#2_23	1
LSAS_Q			Post_LSAS	
2#2_24	4		_Q2#2_24	1

Appendix J: Example of Thematic Analysis

N: And there we go. We have recording. OK, so let's go into the questions. So just the pre-requisite questions to see about your improv. So have you participated in any improv?

S: Yeah, yeah, I've been doing improv for about 10 years now. Um, participating and teaching.

N: Ah, that's good to know, thank you. Yeah, that would suggest that you are still doing improve your.

S: Yeah.

N: Great. Someone seems to be knocking on the side of the building, hopefully you cannot hear that (both chuckle). So we now speak about what, what you may have gained from the experience of learning and performing improv. So we have been the benefits of doing improv, if anything.

S: OK, so yeah, as I've been, I've been doing it for 10 years so the benefits just keep growing and growing.¹ So, for example, the benefit would be, to have kind of creative freedom. So the fact that there's no pre-planning, and you just kind of, it's spontaneous, really allows a certain amount of freedom, which is not always present in everyday interactions, 'cause you always having to, monitor what you're saying and-² I know-

you do monitor what you say and improv of course, you don't want to, upset anyone,³ but um, it's helped with my, self-confidence, 'cause I found, quite quickly that I was good at it. Um and made people laugh. Which is. A nice thing. Um, so confidence wise just, you know, has really helped with my self-confidence, and self-esteem to find something that I'm really good at.⁴ And that, ultimately I've passed on the skills to other people as well.⁵ Other benefits? Um, being comfortable with. Not knowing what's coming next. So, you know, embracing- with improv, obviously you have to embrace that, and accept that you don't know what's going on inside your scene partners head, but knowing that you will deal with it, and to transfer that into everyday life is, which is what I've been doing. Knowing that actually, you know, you can be put on the spot. You can say you can be honest and say, I, my minds gone blank or you can take your improv skills and. And just be OK with being on the spot. Kind of (laughs).⁶

N: Thank you, thank you. Yeah, that's excellent. So just in case, we can look at different areas of life with this, to see if there is anything else, that comes to mind. Um. So you were just talk about some of these things going into everyday life. You think there's, any other benefit for personal life, if anything?

S: Um benefit from improv to personal life. Yeah, kind of general self-confidence and, and speaking up. Whether that's in like in a work meeting. Before I would, I would be afraid to speak up and not, you know. Worried about what I'm saying. I'm worried about what other people think of what I'm saying. So, I think improv is giving me the confidence, to just, you know, se- speak up. And believe in myself more... definitely.⁷ Um. What was the question?

N: So- (S laughs). That's OK. So, the potential benefits for personal life, if any.

S: Yeah, so definitely confidence.⁸ Definitely kind of. Yeah, like I said before, being OK with, with not knowing.⁹ (to self) Personal life. Yeah, I mean I, I was a teacher as well so it kind of the skills kind of interrelate.¹⁰ And because of the performance side of things as well it's helped me to kind of really. Just be confident in myself when speaking and just being, you know.¹¹

N: Thank you. You talk about teaching is that was that improv or schools etcetera?

S: Yeah, so for, 17 or 18 years, I've been teaching in schools, as well. Um, and I would often.¹² Do clubs as well like within the schools and teach improv.¹³ I would bring it into my lessons as well, to make them more interactive.¹⁴ Just to- 'cause I know that it's such a great, fun thing to do. I wanted to share it with, with people, especially like the kids that. What kind of lively and, and that to put them in an improv situation where they felt safe, and comfortable. Was a big boost for them as well, because it's like, "Oh my liveliness is, is paying off," rather than in a school, you know, "be quiet, be quiet." It's like, "no come on, jump up, say what you want." Within reason.¹⁵ So yeah, that was my background in teaching. I don't teach anymore. It was too stressful really, amongst other things.¹⁶ But I teach improv classes face to face, when it's not, before covid, and I'm, I've done some online... online course sessions as well.¹⁷

N: Thank you, yeah. So that clarifies that one. So do you think that, there are any benefit of doing improv in work life, previously and now, if anything?

S: So sorry, what do you mean? Can you repeat the question?

N: Yes of course. Uh, I'll be more directed, so uh, when you were using improv in the classroom, were there any benefits then? If anything.

S: Yeah, the bene- for me or for the people?

N: Let's start with you.

S: Yeah, 'cause it was just another string to my bow, to make my lessons more dynamic, more interesting, more fun.¹⁸ Um, so, and because I'm so passionate about improv, it's like doing something you love. Um, you know, put- doing it wherever you can. And also just passing on that experience 'cause people... like myself before I done it.¹⁹ I was just like "Oh my God, I can't do this. What am I doing?" But actually, if you're taught in the right way and made to feel comfortable and safe. You can do it, and I've worked with people that have said I could never do that. You know, so I know that it brings such a sense of achievement, fun adventure. It's just yeah.²⁰

N: Thank you. Yes. Um. OK, I think I'll just get next prompt instead, actually. So. So how about for... intellectual life. If that makes sense. Any benefits of doing improv for your intellectual?

S: For the brain?

N: Yeah.

S: Yeah, I think it. Yeah definitely. It keeps the brain. Keeps the brain. Being u-, you know, it uses the brain. It can help with. Being you know, making the decision-making, I would say confidence in decision-making, whereas before, I might agonize over a decision. Or will it be the right one, you know, but actually, because of the confidence and the yeah, using the brain to kind of make decisions.²¹ It-it's all connected. Yeah, definitely. I mean it is a workout for the brain. You know it. It takes a lot. You know if you've done an evening of improv, you're quite tired, aren't you so. Is definitely a good workout for the brain. 'cause you're making connections, aren't you? You're thinking on the spot, so I think it's a really good workout for the brain.²²

N: Thanks. Um. So, uh, in your improv have you come across the principle Yes And?

S: Ah yes, good, good, yeah, good point (Nathan begins to say more). Sorry, go on, I'll let you finish (laughs).

N: I was going to ask... um, I'll let you respond to that, because I think you had something you wanted to say anyway.

S: Yeah, so that's a um again, going back to the kind of benefits, the kind of listening like deeper listening skills. I mean it, it really has enhanced my listening skills because of course in improv you have to, really listen to what the other person is saying, and respond, rather than just what you think you should say, or what you think is going on.²³ And yeah, the concept of 'Yes, and' is obviously a fundamental part of improv, which I've definitely, taken into my, my life in general, and just being a bit more open to, opportunities and ideas, and even open to, other peoples' ideas. You know, years ago I could have been quite. Not dismissive, but quite... focused in my own thoughts and not really considered other peoples', opinions, but actually, but just by being more open and saying yes, it's it's more, enriching experience.²⁴

N: Thank you. So, um to-to follow up on that. I just wanted to find out if you had any experiences where you have used this in life... Or to put it another way, what is your 'Yes, and' story?

S: Um so... I mean, I've always been. One for having lots of experiences. You know that's what I'm all about, really.²⁵ I'm just trying to think of a. A specific, 'Yes, and' story since doing improv. Um? We might have to come back to that one.

N: That's OK, that's OK. I just use this to see if it can find any other thoughts. That's all.

S: Yeah.

N: And it already has, to be honest. Um, so I just move on to more general question here. What other benefits for autistic adults participating in improv, if any?

S: Participating in improv, if any. So yeah, kind of. You know if it's set up well, and it's-. I'll tell you what it does, and this is why I forgot to say. And this is great. It provides a structure. So there are rules. Attached. So you can you know, if you've got the structure, you've got the rules, you know. Listen don't block, the-the boundaries of the game.²⁶ You know, I'm I'm more into short form, so, you know you've got the boundaries. This is what we're doing. So you got structure. You've got rules, but within that, you've got the freedom to be spontaneous as well and create. So it's kind of a, no, no brainer really, because, you've got structure. You've got rules, however, you've got the chance to be creative.²⁷ So like I say, if it's set up well and safe and supportive.²⁸ It can give people the chance to just... To kind of experiment with different ways of communicating.²⁹ (Phone says something) Jesus, my sorry my phone just started shouting at me. Oh I'm gonna turn it off. Hold on. I'm in a room on my own and then that started speaking to me (Nathan smiles and chuckles, and they do too). What we're saying... benefits for autistic people ben- participating in improv. (Nathan nods) So yeah, a chance to explore different kind of ways of being different ways of communicating. So if somebody is, naturally quite quiet, they can experiment with being, quite boisterous. Or if they're- you know. So, it's kind of a safe way to experiment with different, ways, that can then be taken, into life, life situations to be a bit more confident and maybe express themselves more.³⁰

N: Thank you. And another side of, what we look-. ...general topic is skills. Were there any skills developed?

S: Um, so yeah, I would say listening skills, performance skills. Um. I've kind of since, taken up a bit of amateur dramatics as well, so I've now kind of progressed. No, not progressed, as well as, I've done some plays. Comedy plays as well, so I would never thought I could do that because having to learn lines, I thought, "oh I can't do that." But I've realized I can. It just takes, takes a long time. So performance skills, you know, have developed and I'm kind of more. Confident within myself. When talking to others. Listening skills,³¹ what other skills? Gosh. Yeah, I can't think of any at the moment. There are probably loads.

N: That is all right, that is all right. Before starting improv, whether other skills that you help take some improv.

S: Were there other skills that what, sorry?

N: That you hoped to be able to get from improv?

S: Yeah, I mean I why did I start? I started it because I wanted to add it into my, teaching. So um, to enhance my teaching skills, I guess.³² Um. I mean public speaking. It kind of goes hand in hand. You know, like I said earlier, speaking up rather than staying quiet. Um it just it really has given me the confidence to-to become who I am now.³³

N: Thank you and so we'll move to the next section. We will speak about what you believe makes a good improv scene partner. What makes an improv partner trustworthy?

S: Um, somebody-, so a partner somebody that you feel safe with.³⁴ Somebody that. Listens.³⁵ Somebody that um... works with you rather than has their own agenda, and tries to dominate. somebody who kind of has an equal. An equal, say in what, what you're doing.³⁶ Um, somebody that you kind of connect with. Um. And bounce off of, so I don't know, I guess it's rapport.³⁷ I guess it's... you know, somebody that listens. I think listening is key as well rather than having it like I said, like having their own kind of way. They think it's gonna go, but really kind of joining the ideas up together. ...yeah.³⁸

N: Yeah, thank you. Um, and a difference way to look at this could be. What attributes in an improviser have that makes it easier, to improvise with?

S: Easier to improvise with. Um, I guess it's similar to what I've just said. Um attributes to make it easier. Ah. Just-, is everything I've

just said really.³⁹

N: Okay. Just checking. Um. So with these, attributes be useful to have in people, you meet in life, towards you.

S: Sorry, the connection was a bit funny there. Could you repeat the question?

N: Yes, yeah. So, would these attributes be useful to have in people that you meet in life, towards you?

S: Yeah, yeah, I guess it's a kind of direct correlation there. It's it's people that you feel safe with who you feel, listen to you. Yeah, it's it's kind of. Yeah, I guess the-the dream scene partner is the kind of person that, you would want to spend time with. Yeah. Think-think that's right, yeah.⁴⁰

N: Thank you. I will break this down into different areas of life to see if there are any comments you can make about the use of these attributes. For example, at work. So would these attributes be useful for people at work?

S: Ah, say- sorry the attributes of the, perfect scene partner?

N: Yeah, yeah.

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S: So would they be useful at work?

N: Um, yeah.

S: Yeah, absolutely. Because it's about relationships, I guess. And. And communication and getting on with others. So yeah, I think. There's a direct link, definitely.⁴¹

N: Thank you. How about, I-I don't know, how- who's at your home, but how about home life, would that be useful for people in your home life?

S: Yeah, again, it's kind of your drawn. I'm drawn to people that I can kind of talk to, be myself with and who-. I think there's another correlation is being appreciated. So with improv, you know, whatever random stuff comes out of my mouth, you know, it's appreciated. Um, and that's a really good feeling 'cause you know you not always appreciated or don't feel appreciated. Um so. Yeah, and that kind of goes to the home life as well. If you're appreciated and listen to your gonna be happier, aren't you?⁴²

N: Thank you. Have you had any experiences where these attributes would have been useful and weren't there?

S: I'm sorry the connection is not great. Could you repeat the question?

N: Of course, of course. Have you had any experiences where these attributes would have been useful?

S: Um... Not really sure how to answer that.

N: That's OK. So, in essence, I'm just wondering if there's any, story that comes to mind, and experiences that come to mind, where these attributes weren't there. And you think if they were there, it would have been much better.

S: And do you mean within improvisation or in life?

N: In life.

S: In life. Um. I guess in in the workplace. Um. So the attributes of like listening and being appreciated and things. Um, yeah, in a previous job that I was in a couple of years ago. Yeah, it was kind of my. I don't think my attributes were appreciated. And I certainly wasn't listened to. So-. Um, I kind of need to speak up and tell the truth, was not appreciated so. And had a, you know, a horrible experience and have since left that job. So yeah, that would have been useful in that job.⁴³

N: Thank you. How about where they have been useful? Any particular moment that comes to mind where, they- you have been listened to and you did feel safe, with the people that were working with you?

S: Yeah, I mean the the job I'm in now. I work for a charity and that their values are kind of a lot more in line with my values. So to kind of include. You know, include people, to inspire. To listen, so um. The role I'm in now I am. I am appreciated and listened to and-and encouraged to kind of do-, well, yeah, encouraged to do things that are outside of my role that I'm passionate about, like. I deliver autism training as well within my organization, and that's not part of my role so. Yeah, it's about finding the right people, who have the similar values, I think.⁴⁴

N: Thank you so we now speak about issues you may have experienced by learning and performing improv. Did you have any improv classes, practices or rehearsals that were unpleasant?

S: Yeah, one that really springs to mind it was I was doing-, I did of course and loved it. So I join. I booked for the Level 2. I think it was a beginners course. Then I booked onto the Level 2 course, but not straight away like maybe the next year or something and I was really excited, oh it was to do long form,

that's right. So I was really excited to be doing something at slightly higher level, and a bit different. And when I went to the class, it just felt I felt really... like, not included. And what-what happened was a few more weeks into it, I found out that that was, that hope that all the people in that class had been. They've done a course beforehand, altogether. So, and it was me and I think one other who were kind of new, new to that group. And, I could really feel it, it was, (yawns) yeah it was. It was really unpleasant. You know, I'd feel like they just picked each other. They just worked with each other. I often felt like I was left on the sidelines, which is, you know, not a very nice, place to be, and I just really felt that I wasn't part of that group and I did- I left. I didn't carry on with the course 'cause it was just awful. And that's not what I wanted. And I wrote a letter to the... teachers, to say- tell them how I felt. And they, you know, massively apologized. So I could I learn from that myself, that if you're kind of. Put in a new group together. You have to be clear and make everyone realize this is a new group and you must include, you know, the two new people. Yeah, it was really unpleasant; it was awful.⁴⁵

N: Sorry to hear that then. Did you take any other classes with that company or did you change?

S: I did. I think it- from what I can remember, it's quite a while ago. I think it took me a long time to, to go with them again, but I did know and trust them, even though that happened. So yeah, I did do, some more courses with them, but it took me awhile to kind of move on from how I felt.⁴⁶ And I do have another example of. An not great experience as well. Should I tell you that?

N: Yeah.

S: So this was. It's quite different situation. There was some. I don't know if they were free or they were like, yeah, I think they were free... workshops, with a different company and I went along and had a great time and, there were different aspects. It was improvisation. It was singing, you know, making up songs. Which I-I really love this, the singing part, so I think it was about three or four weeks in a row and then each time I opted to do the singing and they were... because I was enjoying it. Um and the leader. She did say to me, "Oh, why don't you don't do this other bit and I said I don't know I really like the singing." And then afterwards-. So we had a great time. It was all fun, but what I found out was that they were kind of, um, auditions for their their improv group. But I didn't know that. So I was really gutted. First of all, I was annoyed because it felt like I was lied to. And had I known, I would have probably made more effort to do all the different, styles 'cause I would have wanted to join them. But, it was kinda-, it felt really underhand like why didn't they tell us these were auditions? They kind of. Yeah, they misled me really, saying it was, you know, a series of free workshops. Um, so yeah, that just left a bad taste in my mouth.⁴⁷

N: Did you involve yourself with, those people again?

S: I don't think I did, actually. I think with them they I didn't, feel as-. I didn't think they were as good as the, the main people in [UK City or Town] who do the courses, and I just thought actually I'd rather go with the people that are a bit more expensive, but the teaching is, is much better, yeah, so I didn't go with them again actually.⁴⁸

N: OK OK, thank you. Do you think that was a conscious choice or just happened to be that way?

S: No, it was conscious. I was kind of. I'm still kind of annoyed at them for that (laughs).⁴⁹

N: Thank you, thank you. That was just my curiosity then.

S: Yeah, yeah.

N: Let's see. So from these experiences, none of them stop you from improvising completely. So why, why do you think that is?

S: Because I. I'd had such positive experiences, around those experiences, and I knew that it was something I was good at. Gave me a. You know it's quite good for stress release as well. That's something I didn't mention. You know if you-. If you're stressed at work, for example, you go and do an improv class for two hours in. You don't even think about work, so it kind of really takes you out of out of it.⁵⁰ So... because of all the benefits and my love for improv. You know nothing, nothing would stop me doing it.⁵¹

N: Thank you. Uh. So I think one last question I got in mind for this section is, the, the first experience you use spoke about. Did you explore other groups? Before you went back to that main company?

S: I don't think I did to be honest, just that other one that I mentioned. I yeah, I guess the other one that I mentioned came after that and then I realized that I would go back to the first group. They were much better.⁵²

N: OK OK, thank you. In which case we now speak about, your life and the world we live in. So this is, this isn't about improv, unless you, unless it... you wish to speak about in this topic. I'll bring it up anyway, I'll bring it back in anyway. So, can you tell me how you fit into the world around you?

S: Yeah, I saw that question on the form, um, quite an ambiguous question. I'm not really sure what to say to be honest.

N: That's OK. Um, so... I will ask this one and you could just tell me if this makes sense as well. Just- do you do you feel like you fit into the world?

S: Um. I didn't for a long time. Always thought that was yeah. Always felt, although I look like I do, and I'm very aware people. Think that I'm neurotypical and, you know stereotypical female. Um, inside, I've never really have.⁵³ Um, however, I've been fortunate enough to, kind of. Recognize my strengths and talents from an early age. And that's kind of something I've always focused on. Um. And also, just as I've grown older. You know, I realized that I do have strengths and. And knowing, like 8 years ago I was diagnosed with ADHD and Aspergers traits which I don't think are traits. The hours more than that, so since then, I've become more aware and more celebratory in myself.⁵⁴

N: Thank you. So you say early age. When you started realizing, had all these strengths and talents and focused on that in life. Um, What-what, enabled you to, to start thinking that way or being that way?

S: Umm, I guess I've always been optimistic. I've always been. I've always had an inner kind of strength. Um. That- and res-, I guess an inner resilience. That has always kind of pulled me through. Um. Yeah, I'm quite, quite relentless. You know, I don't like to. To give up, I don't like to be told I can't do things. So I guess that's probably-. Or not even told you know, if you get that impression from someone that they don't quite think you're up to it or. Um, that kind of spurs me on to do even more⁵⁵ so probably an over achiever as well, which is something I'm. Working on. And perfectionism as well. I didn't quite realize the extent that that was... having an impact on my life, so I'm doing all of that and realizing you know things don't have to be perfect and well, it's very you can't really be perfect so-.⁵⁶ Um. Realizing all of that with my inner strength, my inner resilience is just kind of got me to where I am, today.⁵⁷

N: Thank you. And. And when do you, when do you think that-, you realize that these things and-. When did it start to change, I guess.

S: Well, it's kind of all happened within the last 10 years, so it's kind of all kind of been working towards this moment, doing-, I had a lovely job and that was who said they paid for my first improv course. So again and a really lovely employer, that wasn't teaching. So that was the start of the improv and the start of my journey towards kind of diagnosis. And discovery. So it's in the last 10 years, it's all kind of work together. Um, to kind of bring me to this point now.⁵⁸

N: Thank you. So to, to. Reflect back you just, said, to clarify and confirm. In the last ten years you, you ...you ar-, fell into an improv class, you found out diagnosis, elements about yourself and all these began to enable you to, acknowledge your inner strength, resil- resilience. Is that what...

S: Yeah.

N: Thank you. ...And how... and how may, improv have been a part of that, if anything?

S: Yeah, I think it's been a big part of it, kind of. Discovering a talent that I've never knew I've had. I've never done any drama or anything before that point. Like that's not even something I saw myself doing. Um. So discovering that and having a talent for it, and I'm not just having a talent, but having it having such a profound, profound effect on me, and my life.⁵⁹ It's just something that I've, always done now. I did stand up for a while, but that was for two years and then I kind of lost interest, whereas improv. I've never lost the interest. 'Cause it-, you know, every time you do it, it's different. And then to like I said, to be able to teach improv to other people. Just share with them that.⁶⁰ This is something that seems so out of reach, but if it's delivered in the right way, it's really not out of reach and it can just really enhance. Enhance your life.⁶¹

N: Thank you. So, um. Next question which you have available to you. You actually pretended not to be autistic in your life.

S: Yeah, I mean growing up. Not knowing, then? Well, that's not actively, is it?⁶² That's just unconsciously covering up, covering up who I am. Yeah, I guess even since knowing I've still kind of covered it up because it becomes part of. Part of your charac- my character to kind of cover things up,⁶³ literally over the last couple of years, I would say, I'm really starting to undo all of that. And. And try and get back trying find get back to who I who I should be and embrace. Embrace my neurodiversity and not, not hide it anymore. So you know sensory issues. Before you know if I was in a loud place and people with talking to me and I couldn't understand what they're saying, I might just kind of nod and pretend, whereas now I've just got more confidence to say, "Look, I can't process a word, you're saying; it's too noisy. Can we go somewhere else," or "can we have this conversation later?" So, um. Just self, you know, self-advocating and advocating for others as well.⁶⁴ What was the question?

N: Have you actively pretended not to be autistic in your life?

S: Yeah, I guess actively is a, is a strange word, really, um. I wouldn't actively. Necessarily pretend not to. More of an unconscious, unconscious thing.⁶⁵

N: OK. And let's talk about it being unconscious. That's that's fine. So you were talking about early, you were talking about growing up and not knowing about your diagnosis, diagnoses. Um, and it being unconscious. Um. Can you tell me about that?

S: Yeah, I guess early childhood not, wasn't even an issue really. Just going about doing my own thing I was very well, accepted within my family so. Nothing was ever never, wasn't ever unusual.⁶⁶ I guess it's just when you start secondary school. I wasn't, I didn't achieve, what I should have done and nobody really, picked that up. You know I was. I'd be put in lower sets, but feeling that that was wrong. 'cause you know, I. I actually had learning difficulties that, nobody knew about. So, it's kind of having this, having these, this spiky profile being- I was excellent at sports. I was good at English. It's just very, very bad at maths. So yeah, kind of. I wasn't one thing or the other. I mean, I was known to be good at sports. But, you know, I know we got. I never really did anything creative, so my my gifts, my strengths and talents went really, recognized at school, and then that eventually- that does have an impact on your self-esteem. So thinking- knowing somewhere inside me that I'm bright, and clever. But also, having that contrast, think, feeling of I must be stupid.⁶⁷ That has an impact on your self-esteem growing up.⁶⁸ Um. So yeah, it's only kind of has got older and more aware my... I'm able to concentrate a lot more now as I've got older, so I can, reflect more take in more information. Just do as you get older, don't you anyway? So kind of a lot of reflecting, a lot of healing and. And accepting, which is has really helped.⁶⁹

N: Thank you. Uh, so you were just talking about how this has affected you. Um. I guess... is there anymore you'd like to add to how this conscious or unconscious. Oh mainly unconscious thing in your life has affected you?

S: Yeah, I mean it was pretty exhausting. I didn't know why I was so tired, but, just trying to kind of keep up with. I don't know the social chitchat, the social norms. Pretending you know what's going on, I've become, you know, a good actor, so, um. Just pretending you know what's going on, um. Fitting in, trying to fit in.⁷⁰ I mean now I'm like, "God no don't fit in," but if you don't know what you do it- if you don't know what's happening you do, don't you. Just try and fit in.⁷¹ So yeah, exhausting, stressed, burned-out.⁷² What's the other thing I was going to say? Oh, kind of depression, as well since... since my diagnosis to be honest and all my soul searching, and I don't think I've been depressed once. So that's kind of a, quite a bad side

effect of a covering up who you are. So yeah, anxiety is still an issue, but nowhere near as bad as it was. Um. Yeah, uh, and also kind of. I was diagnosed with OCD as well and again. Since knowing everything, the intrusive thoughts are not, as not as frequent, so. Yeah.⁷³

N: Thank you very much for sharing that. Umm... So we'll move onto the next section, last, essentially the last two questions. And then we can go over whatever else you'd like. Do you find it harder or easier to socialize with improvisers and other people?

S: Sorry, the connection went, harder or easier to socialize with improvisers..

N: than any other person.

S: Um. Well. I would say whenever I've kind of socialized with improvisers, it's always been. Probably easier, actually. They- generally improvisers are more, accepting of people's difference-, in my experience anyway.⁷⁴ Kind of open minded.⁷⁵ Fun... you know. So yeah, I've- although I've like, sometimes, you know, it's like, "Ooh, we're going for a drink. Do you wanna come?" And I'd be like, "Oh, I really don't want to but I should." I don't think like that anymore but I used to. Um. He's always been quite pleasant. People are quite. Yeah, just don't kind of put pressure on you just because you're great at improvising and jumping around and being ridiculous. They don't then expect you to be like that in the pub, you know.⁷⁶ So yeah, I think they're quite an accepting... bunch.⁷⁷

N: Thank you. And is this similar or different, to how do you say socialise with autistic people who don't do improv? If you socialize with other autistic people.

S: Don't know really. I just I just socialize with people. The same wherever I am, you know (laughs).
Yeah.⁷⁸

N: Yeah, OK, thank you. And the other, section is communication. So. Do you find it harder or easier to communicate with improvisers than other people?

S: Generally, I can't say one way or the other,⁷⁹ but generally, I would say easier if I had to say something. Yeah. And you've got that shared common ground. Haven't you, improv and and everything that brings which is listening, accepting, building, so it's kind of a good foundation for, friendships and relationships, really.⁸⁰

N: Thank you. OK. And I ask this question anyway. Might be different to, a moment ago. Is it similar or different how you communicate with autistic people who don't do improv?

S: Um, I don't really know. Can you repeat the question?

N: Yes, of course. Is similar or different to how you communicate with autistic people who don't do improv?

S: No, I don't think so. Like I say, I kind of, am myself with whoever I'm with. Well, I try to be anyway.⁸¹

N: Thank you. Um. OK, so to complete then we can discuss more on any of the topics that you wish to. I've got, the topics at hand I can put into the chat, if we need that. These are obviously the ones I think- my interpretation of what we have spoken about, anyway. Um, yes, so feel free to. Talk about any of them.

S: Benefits from doing improv comedy, bad experiences. Pretending to be tr-. Socializing. Changes in your life. Since we cannot have any experience with stories. Um? So a big change that's happening now is I'm starting up my own business. And during lockdown, I picked up a life coaching course that I kind of put down years before. Um. It was just I was furloughed so it was just the perfect opportunity to do that. And I just found that I fell in love with coaching again. Um, so I've literally just qualified as a coach. And my new business, which I'm literally working on at the moment whilst being at boring work is some. Coaching. Improv workshops. Neurodiversity training. I actually did the, spell training there, at Tizard. Yeah, years ago. I think it was

the first one and um, speaking, public speaking. So, has it changed my life. Well yeah, it's shaping my business 'cause what I also want to do is combine like create a course, that combines coaching and improv, and fortunately it can be done online as well, so you can reach more people. I mean I-I would like. I can't wait to actually deliver a workshop again with people in. In a space. I'm sure you, you probably agree. But, so has it- it has changed my life dramatically and all of the ways that I said, but also, going forward, I'm gonna be teaching it, and performing as well, you know, I'd love to get a little improv group together, but. I've

always put that off. I don't know why 'cause it's something I'd really like to do. So, yeah, it's gonna really. It's going to be part of my, my own business.⁸²

N: Oh wow. Oh OK, so it's just- if there's anything more that you feel like you wish you can, but otherwise that's the interview and I thank you for your time.

S: Yeah.

N: Wished to add.

S: Yeah, just think that pretending not to be yourself. What's happened is that that has happened. I pretended not to be myself. Discovered improv where you kind of are other characters, so you're not yourself. But through that I'm discovering who myself is. So it's kind of like a nice. Kind of linked interlinked circle. Where you can discover you who you really are. Well who I really am. Through doing improv.⁸³ And as you can probably gather, I'm very passionate about improv. That's why I try and get everyone else to do it.⁸⁴

N: Thank you. Thank you so much.

Annotations

¹ They are passionate about improv and keep finding more benefits from it as they go.

² Improv brings creative freedom in expression as you do not monitor as much as in life.

³ You do monitor what you say and do in improv, as you do not want to upset people.

⁴ I was good at improv and making people laugh, so it helped my self-confidence and self-esteem.

⁵ I teach improv too.

⁶ Improv can be applied to life in the sense of embracing the unknown or admitting when you have nothing to respond with - either works.

⁷ I have more confidence to speak up for myself and self-confidence (to do so).

⁸ Improv helps confidence.

⁹ Improv helps with being okay with not knowing.

¹⁰ As a teacher the confidence and not knowing inter-relate.

¹¹ Performance of improv helped with being more able to speak up.

¹² They taught in schools for 17-18 years.

¹³ They ran improv for school kids.

- 14 Improv made my lessons more interactive.
- 15 Improv for kids was useful to enable them to be their lively selves and say and do whatever (within reason).
- 16 Teaching in schools was stressful and they had a bad experience, so they no longer do it.
- 17 They teach improv now, in-person (before COVID-19) and online.
- 18 Improv was another string to my bow in teaching.
- 19 Improv gave them passion to pass it on to help others.
- 20 Improv can bring out a sense of achievement and managing to do more than ever expected.
- 21 Improv helps to be decisive in decision making, being confident to do so.
- 22 Improv is a workout for the brain.
- 23 Improv has people deeply, actively listening.
- 24 Improv helped in their life to be open to opportunities for more enriching experiences. Previously they would have not considered other's opinions.
- 25 They have been one for having a lot of experiences.
- 26 Improv can be beneficial for autistic people, as there is structure (rules, etc.).
- 27 They do short-form games. Improv enables creativity by having a structure of rules.

²⁸ Improv is safe and supportive.

²⁹ Improv offers a chance to communicate in different ways for autistic people.

³⁰ By performing different communication (e.g., quiet, boisterous, etc.), autistic people safely explore alternative ways of being. This experience can inform their life. It can help them express themselves more.

³¹ They developed performance, listening skills and confidence. They are more able to talk with people. They can challenge themselves to do what previously seemed not possible.

³² They started improv to enhance their teaching.

³³ Improv gave them confidence to be who they are now and speak up. And public speaking.

³⁴ Improvisers must make you feel safe.

³⁵ Improvisers must listen.

³⁶ Improvisers must share the stage without their own agenda.

³⁷ Improvisers must have rapport with each other - bounce of each other.

³⁸ Improvisers must listen and build together.

³⁹ Same same! There are no new ideas to be said.

⁴⁰ A dream improv partner is who you want to spend time within everyday life, so these qualities are correlated to that.

41 Work relationships can benefit from improv - communication, rapport, etc.

42 In personal, home life, it is good to be appreciated - like in improv, whatever is stated is appreciated.

43 In teaching, they had a horrible experience where they were not appreciated or listened to. They were speaking up to tell the truth.

44 They are valued in their charity job now and this is better - they have the right people around them: shared values. and encouraged to go beyond, autism training.

45 They felt sidelined in a course that they had to quit, as they were not valued - much like they had said is necessary from improvisers. The class group were a clique.

46 They returned but trust had to be regained (by time passing, so forgiveness).

47 They attended auditions without being told it was, so this was a deceitful choice they made that does not form trust. They enjoyed the classes but not the result find they were lied to.

48 This group were not as good as other options, so they did not need to go back.

49 They purposefully chose not to return to the other group.

50 Improv was a positive experience for them and helped them with stress relief.

51 They like improv too much to stop doing it.

52 They returned the big improv company locally having found out the other options were not good, and it was an error on their part that was not in their reputation with the participant.

53 They never have fitted in, but as they seem NT and stereotypical female they are perceived to.

54 They could recognise their strengths at an early age and understood themselves - so they celebrated themselves.

55 They are relentless and optimistic, so they helped them to realise and be themselves.

56 They are working on not needing perfection, but they have always been an overachiever.

57 Realising their relentless nature and overachieving was what helped them with inner strength and resilience.

58 Within the timeframe of starting improv, they were diagnosed.

59 Discovering they had a talent at improv and drama had a profound effect on them. --strength.

60 They lost interest in stand-up but improv being different stayed and they began teaching it.

61 Improv can seem like it is out of one's reach, but it is not and can enhance your life according to the participant.

62 Not knowing they were autistic, they unconsciously pretended to not be autistic.

63 They were unconsciously covering up who they were, as a part of their natural inclination.

64 Over the last couple of years, they have embraced their ND and been advocating.

65 Masking or covering has been an unconscious thing.

66 They had a good family life, and no issues in junior school.



⁶⁷ They have a spiky profile of abilities, so for some school topics they had learning difficulties but others they were fine. The contrast made them feel stupid, even though they knew they were clever inside.

⁶⁸ This issue impacted their self-esteem.

⁶⁹ Age helped, as it does - healing and accepting upon reflecting on life.

⁷⁰ They were tired and exhausted trying to fit in and pretend they knew what was going on socially. Before dx, this was without understanding why they were tired.

⁷¹ Now they think it best not, but otherwise it is natural to try to fit in.

⁷² Masking or covering made them exhausted, stressed and burned-out.

⁷³ MH issues decreased upon dx and understanding oneself.

⁷⁴ Improvisers are accepting of people's differences.

⁷⁵ Improvisers are open-minded.

⁷⁶ Improvisers are fun and social, but without pressure for you to attend too - albeit, that they felt it was necessary within themselves sometimes too.

⁷⁷ Improvisers are accepting of people.

⁷⁸ They socialise the same with everyone.

⁷⁹ Communication is neither harder or easier with improvisers.

⁸⁰ At a push, it makes sense that improvisers are easier with the shared common interest and with the foundation of improv (listening, accepting, building) that helps form friendships.

⁸¹ They communicate the same with whoever with which they are talking.

⁸² Improv is becoming their livelihood, in part, as a part of a business venture they are starting. So improv has impacted their life a lot.

⁸³ Improv helped to discover themselves, as they play people that are not them which helps to identify who they are.

⁸⁴ They are passionate about improv and wants everyone to do it.

This next example is a portion of the data inserted into Microsoft Excel:

improvising onstage and in life

Provides a happier and fulfilling life, and in all aspects of life	Enables saying yes to opportunities and going beyond my boundaries	Gaining a connection to the or a sense of belonging and community	Skills and comfort at improvising, performance and comedy	Helped manage the unexpected
A happier person - could have been so in the past (school) if they had improv	A person of the 'yes' - open to opportunities	A sense of belonging and community	A way of pursuing performance without fixed things the whole time	Helped me have faith deal with whatever happen relax my expectations
Apply to life - all aspects of improvisation	To push beyond our boundaries, resilience, beyond fear, find a way to manage to not do eye contact but same result	<u>Gaining a connection to the or a community</u>	I am more confident improvising in performance	Helped me manage w unexpected happening
Improv can be applied to all aspects of adult life			Impacted my me as a performer, take risks onstage	It doesn't always me death if something does out as expected

Teaching improv is a fulfilling experience

Improv saved me

Improv saved me

Have comfort that I don't need a safety net (onstage)

Being more comfortable unknown and applying t

Improv has been essential to my performance work, it was improvised to connect to audiences (street theatre)

Performance and comedy

Helped to articulate a premise

Helped to know what is particularly funny and connecting to this audience about this moment

Helped with performance skills

Helped with doing non-improvised theatre

Helped develop a character for performance career

Helped develop more projection and enunciation skills

I developed comedic timing

I used to struggle with remembering scripts, but not so much anymore

It loosened my imagination up as a performer

It made me a better actor

Learnt skills that made me funnier, not funny

