







Research Article

Aspects of Mindfulness-Based Intervention to Reduce Anxiety in Adults with Autism: A Delphi Study

Eldatia Utari Putri ¹, Endang R. Surjaningrum  ¹ and Afif Kurniawan ¹

¹ *Clinical Psychology and Mental Health Department, Faculty of Psychology, Universitas Airlangga, East Java, Indonesia*

ABSTRACT

Anxiety is a common psychological disorder often experienced by adults with autism. Studies suggest a method called Mindfulness to help reduce the disorder. However, experts have not reached an agreement on what aspects of Mindfulness are appropriate for adults with autism. Using the Delphi technique, the current study aims to gather expert consensus on which aspects of Mindfulness can be used to reduce anxiety in adults with autism. Opinions were gathered from a panel of seven Mindfulness experts for adults with autism and from adults with autism who had experience using this method. There were 35 Mindfulness-based intervention items agreed upon that matched the characteristics of adults with autism, but of these, only 28 were appropriate. The items are distributed in several sections: preparation, exercises, concepts, homework, and facilitating autistic characteristics. This consensus was reached through three rounds. Mindfulness can be seen as an alternative method for reducing anxiety levels in adults with autism, especially during social interactions. In addition, it is also possible to apply in a therapeutic setting. However, several factors need to be considered in advance when this intervention is to be implemented in Indonesia.

Keywords: autism, adult with autism, anxiety, Mindfulness, the Delphi technique

UDK: 616.89-008.48-051.8

DOI: 10.19090/pp.v15i4.2382

Received: 09.12.2021.

Revised: 20.05.2022.

Accepted: 14.06.2022.



Copyright © 2022 The Author(s).

This is an open access article distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

✉ Corresponding author email: endang.surjaningrum@psikologi.unair.ac.id

Introduction

Autism Spectrum Disorder (ASD) is a neurodevelopmental condition that begins in childhood and persists into adulthood. Individuals with this disorder usually have deficiencies in communication and social interaction, repetitive and restricted behaviors and interests, and hypersensitivity or hyposensitivity to certain sensory inputs. The prevalence of autistic individuals is estimated at 1% of the population (American Psychiatric Association, 2013).

Approximately 42% of adults with autism experience anxiety throughout their lives (Hollocks et al., 2019). The anxiety they experience is not only in accordance with the Diagnostic and Statistical Manual (DSM) criteria, such as generalized anxiety and specific phobia, but also ASD-specific anxiety (American Psychiatric Association, 2013, Halim et al., 2018).

The anxiety is caused by poor executive functioning (Johnston et al., 2019), an inability to communicate socially, and an inability to cope with uncertainty and change (Halim et al., 2018; Robertson et al., 2018). Having restricted and repetitive behaviors, cognitive differences (Stark et al., 2021), and camouflaging or masking in a social situation (Hull et al., 2017; Schneid & Raz, 2020) can also cause anxiety in adults with autism.

Cognitive Behavioral Therapy (CBT) and Mindfulness-Based Therapy (MBT) are two common intervention approaches for reducing anxiety in adults with autism. CBT was found to be moderately effective for symptoms of depression and anxiety in adults with autism. On the other hand, MBT is more impactful in reducing anxiety in adults with autism (Conner & White, 2018; Kiep et al., 2015; Spek et al., 2013).

Mindfulness, both Eastern and Western concepts, was reported to be significant for people with autism. The Eastern concept which focuses on moment-to-moment awareness of present experiences and the Western concept which focuses on alertness and openness to new information have their respective advantages (Poquerusse, Pagnini, & Langer, 2020). MBT is more suitable if the individual has high irrational beliefs (Sizoo & Kuiper, 2017).

However, inappropriate cognitive restructuring and intervention not adapted to the way of thinking of adults with autism will actually have a more harmful impact on them (Brede et al., 2020).

Not only can MBT help reduce anxiety, depression, and rumination with substantial effects (Spek et al., 2013), but it can also reduce autistic symptoms, improve general mood (Sizoo & Kuiper, 2017) and impulse control (Conner & White, 2018), reduce physical and psychological symptoms such as anxiety and depression, and improve general physical and psychological well-being. These results were found to be stable for 9 weeks after the intervention (Kiep et al., 2015).

In practice, to be applied to adults with autism, MBT still needs some modifications to increase its effectiveness (Stark et al., 2021). Modifications can be made by adapting the total and duration of each intervention session, avoiding ambiguous metaphors and terms, and discussing individual homework plans (Kiep et al., 2015; Spek et al., 2013). Another modification is to provide additional materials, such as the concepts of stress, anxiety, and depression, which are modified according to the characteristics of adults with autism (Conner & White, 2018; Sizoo & Kuiper, 2017).

A study found that it takes the ability to think outside the box in dealing with adults with autism. This ability is related to the need for inventive and initiative thinking to make the given material be understood (Ainsworth et al., 2020).

The ability can only be obtained if the clinician has the confidence and experience and has attended certain intervention training. The lack of research and empirical knowledge, as well as the lack of training on specific modifications of standard anxiety interventions in adults with autism, make the intervention more complicated. Modifications that have been made by clinicians are less effective because they are generally inconsistent, resulting in differences in treatment by each clinician (Ainsworth et al., 2020).

It is therefore important to develop specific guidelines (Robertson et al., 2018) or reach an agreement between clinicians or adults with autism who have

used Mindfulness methods. This study applied the Delphi technique to gather expert opinions to get a consensus on what aspects should be included in a Mindfulness intervention to reduce anxiety in adults with autism. The results of this study are expected to provide guidelines for clinicians, psychologists, or therapists regarding the application of Mindfulness-based interventions in adults with autism.

Method

Research Design

This study uses a modified Delphi technique. In the first round, the researcher distributed a questionnaire based on a predefined module rather than giving open questions to a panel of experts to compose a questionnaire. The module used in this study is the Mindfulness-Based Stress Reduction (MBSR) by Jon Kabat-Zinn (2005; Jon Kabat-Zinn, 2017). In the second round, each expert was asked to rate the items in the questionnaire on a scale of 1 to 9. They were also allowed to give notes in the note column when they wanted to add something uncovered in the questionnaire. The analyzed questionnaire was again sent to a panel of experts in the third round. Each questionnaire was adjusted individually so that each expert could re-evaluate his/her previous assessment. The identified items were then analyzed for appropriateness using the RAND/UCLA Appropriateness Method (RAM) (Fitch et al., 2001).

Ethical approval for the research was granted by the Ethics Committee for Disability Studies, Center for Disability Studies and Services (CDSS) Universitas Brawijaya (31/03/2021; No. 037/UN10.C20.11/PN/2021). In this section, the authors also assert that all procedures in this study are in accordance with the ethical standards of national and institutional committees on human experimentation and with the 1975 Declaration of Helsinki, as revised in 2000.

Participants

Participants or so-called an expert panel in this research are those who have expertise in Mindfulness-based interventions for adults with autism. The expert panel consisted of (1) psychologists, psychiatrists, therapists, or counselors who had ever provided this kind of intervention; (2) researchers with research interest in this issue; and (3) adults with autism who had received the intervention and/or implemented it independently. In this case, adults with autism must have adequate cognitive abilities as evidenced by their IQ scores. The identity of each expert panel is unknown to the other expert panel members.

The research invitations, screening questions, and informed consent were sent to 25 institutions, 12 researchers, and 12 adults with autism and clinicians both nationally and internationally regarding their willingness to participate in this study. The expected number of expert panels was 7 to 15 people, which is considered large enough to represent diversity, but also small enough to allow each expert to engage in a group discussion (Fitch et al., 2001).

Participant Characteristics

Eight participants completed the informed consent, but only seven participants completed all three rounds ($M_{age} = 40.8$; $SD_{age} = 17.13$; 57% male). Participants were clinicians ($N = 4$; 57%) and adults with autism ($N = 3$; 43%) aged 23-71 years. The adults with autism in this study met the criteria as evidenced by their IQ scores and their current occupation reflecting their adequate intellectual abilities, and they were officially diagnosed as ASD. Half of the clinicians had experience administering this intervention to adults with autism, and the other half had a research interest in this issue. The adults with autism reported that they had implemented the Mindfulness-based intervention independently and all of them lived in Indonesia. Meanwhile, the clinicians were domiciled in Australia ($N = 2$), the Netherlands, and the United States (Table 1).

Table 1*Expert Panel Characteristics*

Participants Characteristics	<i>N</i>	%
Gender		
Male	4	57
Female	3	43
Age	<i>M</i> = 40.80, <i>SD</i> = 17.13	
Diagnosis		
Autism Spectrum Disorder (ASD)	3	43
Neurotypical	4	57
Adult with Autism Occupation		
Undergraduate Student	1	33
Employee	2	67
Clinician Occupation		
Psychologist	2	50
Child Psychologist	1	25
Behavioral Therapist	1	25
Also Researcher	2	50
Clinician Experience with Mindfulness		
>3 years	3	75
7-11 months	1	25
Residence		
Indonesia	3	43
Australia	2	28
The Netherlands	1	14
United States of America	1	14

Data Collection and Analysis

Round 1

The Mindfulness-Based Stress Reduction (MBSR) module by Jon Kabat-Zinn (2005; Jon Kabat-Zinn, 2017) and a literature review on Mindfulness-based interventions in adults with autism was used to develop the questionnaire. In each round, the expert panel was asked to provide their rating, from 1 (“*not effective*”) to 9 (“*very effective*”), of “How effective is each item at reducing anxiety in adults with autism?” They were also allowed to add comments in the “Notes” section.

Round 2

After completing the informed consent as a statement of willingness, the questionnaire and general instructions were emailed to the expert panel. The experts were expected to assess the first questionnaire for a maximum of two weeks. The experts were alerted on day 7 and day 10 and asked if further assistance was needed.

Descriptive statistics were applied to the results of this round. A statement was said to reach agreement when 60% of the experts rated it 6 to 9 (Consensus is reached for inclusion). Meanwhile, an item was considered not to reach agreement when less than 60% of the experts gave a rating of 6 to 9 (Consensus is reached for not being included). Items that were not agreed upon were brought to Round 3 along with the new items obtained from the experts' comments.

Round 3

The questionnaires in this round were individually adjusted based on the experts' previous assessments and the median scores of all experts' assessments. Descriptive statistics were applied once again to the results to find which items reached the final consensus. The items that reached the final consensus were then analyzed for their appropriateness using the RAND/UCLA Appropriateness Method (RAM).

An item is considered appropriate when the median score of all experts' assessments is 7 to 9, with no disagreement. An item is considered uncertain when the median score of all experts' assessments is 4 to 6, or there is a disagreement. An item is considered inappropriate when the median score of all experts' assessments is 1 to 3 (Fitch et al., 2001). The flowchart is given in Figure 1.

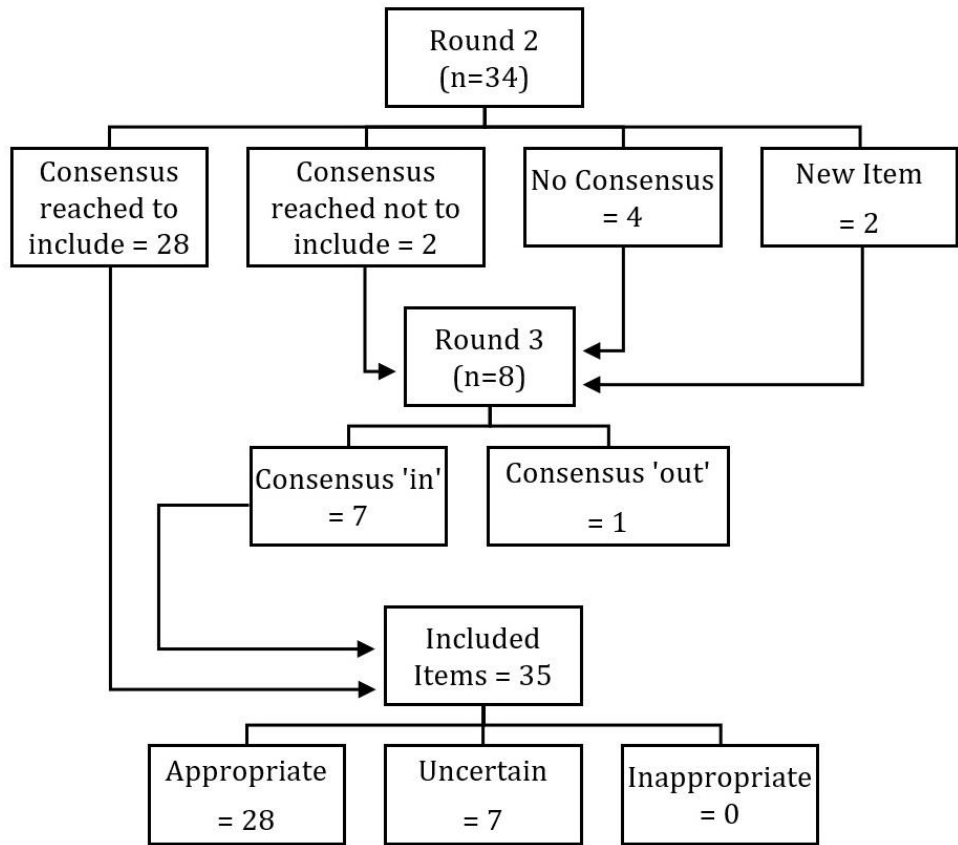


Figure 1. The Flowchart in Each Delphi Round

Results

Round 1

Based on the literature review, 34 statements were obtained and were divided into five sub-sections: Preparation, Mindfulness Practice, Concept, Homework, and Facilitating Autistic Characteristics. The prepared questionnaire had been reviewed by experts and was then translated into English and proofread by the English language professional to make both national and international experts have the same and equal understanding.

Round 2

The results of the descriptive analysis found that 28 statements fell into "IN" consensus, two statements were "OUT" consensus, and four statements were "NO" consensus. Besides, two new statements obtained from the experts' comments were added to the "Facilitating Autistic Characteristics" sub-section, namely "*Reconfirming the participants' understanding (double-check) regarding the material and instructions given*" (E6) and "*Providing visual aids to help participants understand each explanation given*" (E7). Statements categorized in the "IN" consensus were directly included in the analysis of the results. Meanwhile, statements that fell into "NO" and "OUT" consensus were re-included in the next round along with two new statements.

Round 3

Of the eight statements included in round 3, the statement "*Teaching Yoga techniques such as standing yoga, mindful hatha yoga, lying-down yoga*" (B4) did not reach an agreement ("OUT" consensus), while the other seven statements reached an agreement and were included in the RAM analysis. Out of 35 statements, 28 were appropriate and seven were uncertain.

These "*appropriate*" and "*uncertain*" labels are related to the priority of delivery in the intervention. Appropriate statements mean that they should be provided to each client. Uncertain statements, on the other hand, are to be given after considering the client's condition in advance (adjusting). If the condition is possible, it can be provided to the client. However, if it is not possible, it does not need to be given to the client (Table 2).

Table 2

Items Reaching Consensus

	Preparation	RAM Analysis
A1.	Providing an outline of the interventions to be carried out	Appropriate
A2.	Asking for a commitment to be willing to carry out a series of exercises within and outside the intervention session actively	Appropriate
A3.	Describing emotions (joy, sad, angry, etc.) with concrete explanations before starting the Mindfulness session	Appropriate
A4.	Explaining or providing cautionary of any possible emergence of feelings of sadness, anger, or fear during the intervention session that might be causing discomfort	Appropriate
	Mindfulness Practice	RAM Analysis
B1.	Practice awareness of breath (AOB)	Appropriate
B2.	Teaching simple ways of paying attention and being aware of thoughts, feelings, and sensations in the current state	Appropriate
B3.	Explaining how to refocus attention while doing Mindfulness practice by not forcing to eliminate certain thoughts, just simply "let it be" and "let go"	Uncertain
B5.	Teaching Meditation techniques that can be done such as sitting meditation, or walking meditation, etc. for focusing attention on breathing	Uncertain
B6.	Teaching body scan techniques	Uncertain
B7.	Teaching several activities that can be done with full awareness such as mindful eating, speaking, and listening, to practice focusing attention on the current state	Appropriate
B8.	Discussing the feelings after doing a Mindfulness exercise	Appropriate
B9.	Discussing what can be done to improving Mindfulness practice on the next session	Uncertain
	Concept	RAM Analysis
C1.	Explaining what Mindfulness is	Appropriate
C2.	Discussing the connection between mind and body sensations when an unpleasant experience happens	Appropriate

C3.	Recognizing the stressful pattern, understanding their feelings, and how to express them accurately	Appropriate
C4.	Recognizing the physical feelings and sensations that can be aroused when someone is feeling anxious	Appropriate
C5.	Identifying things that can be anxiety stressors	Appropriate
C6.	Developing more effective ways to respond to negative situations positively and proactively, so that would be able to cope with unpleasant experiences (anxiety) faster	Appropriate
C7.	Focusing on individual capacity to adapt to daily challenges, stress, and anxiety in a daily setting in faster and more effective ways	Appropriate
C8.	Focusing on responding (than reacting) to anxiety stressors	Appropriate
C9.	Adopting Mindfulness for learning to stop, take a step back, and then see things clearer and more objective so that would be able to make a decision better	Appropriate
C10.	Improving individual capacity for more effective self-regulating and anxiety coping	Appropriate
C11.	Improving effective and creative internal communication skills, especially related to challenging things	Appropriate
Homework		RAM Analysis
D1.	Providing recording of meditation and yoga exercise guides to be done outside the session	Appropriate
D2.	Providing handout for recording weekly tasks	Appropriate
D3.	Choosing one full-awareness daily routine activity (such as brushing teeth, watering plants, cleaning home) to be done outside the session	Appropriate
D4.	Identifying stress and anxiety reactions that can automatically occur and events that cause deadlock or difficulty to do activities	Appropriate
D5.	Improving self-awareness when reacting to something and finding the right choice to more mindful respond	Appropriate
Facilitating Autistic Characteristics		RAM Analysis
E1.	The facilitator should be understanding the characteristics, the best way of communication, and the sensitivity of every adult with autism client	Appropriate
E2.	Providing individual sessions on every meeting to ensure the understanding of each client	Uncertain
E3.	Eliminating the use of metaphors or words that have multiple meanings	Appropriate

E4.	Permitting every client to take breaks if needed	Appropriate
E5.	The facilitator should be cooperating with every client's significant others to ensure homework to be done outside the sessions	Appropriate
E6.	Double-checking participants by confirming their understanding while giving instructions and materials	Uncertain
E7.	Giving visual aids to help participants understand every given explanation	Uncertain

Discussion

This research is in line with the findings of a research review by Poqerousse, Pagnini, & Langer (2020) that Mindfulness training for individuals with autism is a powerful and promising way for them. Therefore, an effective Mindfulness program for people with autism needs to be created. This current study found 35 items grouped into five sub-sections: preparation, practice, concept, homework, and facilitating autistic characteristics. Of the 35 statements, 28 were categorized as appropriate and seven were uncertain.

In the first section, preparation, all statements reach consensus and are deemed appropriate. An agreement on the statements in this subsection is easier to reach since they are general therapeutic competencies that are more likely to get the same views from experts from different backgrounds than a specific technique of a particular intervention approach (Taylor et al., 2020). Understanding the emotions of adults with autism before starting an intervention is considered important, as stated by Ainsworth et al. (2020) and Spain et al. (2015) that understanding the emotions of adults with autism at the outset is important before starting the intervention session using certain techniques in the autistic group.

In the second section, Mindfulness practice, the core practices that reach an agreement (appropriate) are the concrete activities that can be felt directly by the five senses. The result is in accordance with the characteristics of individuals with autism who are easier to understand concrete and detailed things (Hobson, 2012; Spek et al., 2013). The more concrete and detailed the instructions, the more likely they are to understand the instructions (Happe &

Frith, 2006). Meanwhile, the uncertain Mindfulness practices are the activities that require concentration and complex cognitive understanding. This statement can only be given to adults with autism who may have this ability.

One of the core Mindfulness characteristics that doesn't reach consensus is yoga. There are several explanations why yoga does not reach an agreement, especially if it is applied in Indonesia. The understanding of the term "yoga", the strong belief in their religion, and the local tradition of Indonesian can influence their perspective about yoga.

In Indonesia, yoga which was originally brought by monks is often considered part of a certain religion, Hinduism. The majority of Indonesians, of whom 87.2% are Muslim and only 1.7% are Hindu (Central Bureau of Statistics, 2010), commonly have a different view of yoga. Based on the *fatwa* of the Indonesian Ulema Council (Majelis Ulama Indonesia - MUI) in 2009, pure yoga is a religious ritual activity and contains meditation and mantras which are considered *haram* or forbidden and a sin for Muslims (Komisi Fatwa MUI, 2009).

Nevertheless, yoga is one of the Complementary and Alternative Medical (CAM) Interventions often used by adults with autism to improve their well-being, address specific symptoms, and find solutions to address major autistic symptoms (Barnett et al., 2014).

This study found that the main aspects of yoga that balance the mind, body, and soul are still possible to be applied if it is adapted to Indonesian traditional values. Related to this, Tucker (2013) explains that interventions that are suitable to be applied to people with autism in Indonesia, especially in Java, are those that have been adapted to the community values or local daily practices and which can increase pride in their local/national identity. In this case, using Javanese traditional music called gamelan as a therapeutic tool will increase their likelihood to use this particular approach. Using the local values will make the adults with autism feel confident and secure (Tucker, 2013).

In the third part, Concepts, all items reach consensus and are considered appropriate. All concepts need to be given to adults with autism, but they need

to be adapted to each individual's understanding, according to the aspects in the sub-section 'facilitating autistic characteristics' of each participant.

In the fourth section, Homework, all items reach consensus and are considered appropriate. With weekly handouts and activity lists in hand, adults with autism can be more comfortable because they already know what will happen during the intervention session, thereby reducing the possibility of anxiety due to uncertainty and changes.

The fifth sub-section is Facilitating the Autistic Characteristics of each Participant. This consensus is in line with the results of research conducted by Ainsworth, et al., (2020) regarding the importance of continuous support from significant others such as family or closest friends in dealing with long-term anxiety in adults with autism (Ainsworth, et al., 2020). Uncertain statements in this subsection refer to practitioners who need to understand the condition of each individual (*i.e.*, whether individual sessions, double checks on understanding, and the provision of visual aids are needed). If they are not needed, they need not be provided.

Limitation

First, the absence of a standardized definition of a consensus (Diamond et al., 2014) made researchers set their own standards. The difference in the selection of agreement norms, being tighter or looser, will allow for differences in research results (Taylor, et al., 2019). Second, Mindfulness has not been regarded as the best-practice therapy for adults with autism, so there are not many experts/researchers in this field. As a result, the response of the willingness given by the expert is not much (low-response rate). On the other hand, the researcher also realizes that it is very likely that there are experts out there the researchers do not know about.

Despite the limited number of experts that were willing to participate, they still met the minimum standard of between 7-9 people (Fitch et al., 2001). To increase the validity and obtain larger perspectives or alternatives, the expert panel of this study was also gathered from various backgrounds such as

psychologists, researchers, and even adults with autism themselves who are the main target of the intervention (Powell, 2003).

The prospect of Mindfulness-based intervention application to adults with autism is still confined to those who have adequate cognitive abilities or intelligence. There is not much evidence that adults with autism with intelligence disorder can benefit from the intervention.

Conclusion

In preparation, the therapist needs to provide an explanation of the intervention to be carried out as well as an explanation of the various emotions. Mindfulness practices that are suitable for adults with autism are the practice of awareness of breath (paying attention to what is happening right now) and some mindful activities that can be done outside of counseling sessions such as mindful eating, speaking, and listening. Besides, the therapist also needs to provide a concept about recognizing situations that can be a source of anxiety and also how to increase self-capacity in dealing with anxiety. Concepts are given according to the abilities of each autistic adult and the type of facilitation needed.

In addition, giving homework and facilitating autistic characteristics are also important. The therapist must really understand the characteristics and sensitivities of each individual, eliminate ambiguous sentences, and the importance of building cooperation with significant others to ensure whether the practice of Mindfulness is well-implemented outside the session.

Based on the limitations, it is recommended for further researchers to expand the potential participants. Mindfulness practitioners are advised to increase their understanding of the characteristics of autism to make adults with autism better understand the concepts provided. As for adults with autism who experience anxiety, it is recommended to use this intervention either formally by following a structured intervention by an expert or independently by following the important aspects found in this study.

Acknowledgements

We would like to thank all people who participated in this research.

Conflict of Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

Data availability statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

References

- Ainsworth, K., Robertson, A. E., Welsh, H., Day, M., Watt, J., Barry, F., Stanfield, A., & Melville, C. (2020). Anxiety in adults with autism: Perspectives from practitioners. *Research in Autism Spectrum Disorders, 69*, 101457. <https://doi.org/10.1016/j.rasd.2019.101457>
- American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). <https://doi.org/10.1176/appi.books.9780890425596>
- Badan Pusat Statistik. (2010). *Kewarganegaraan, Suku Bangsa, Agama, dan Bahasa Sehari-Hari Penduduk Indonesia: Hasil Sensus Penduduk 2010*. Author.
- Barnett, J. E., Shale, A. J., Elkins, G., & Fisher, W. (2014). *Complementary and Alternative Medicine for Psychologists: An Essential Resource*. American Psychological Association.
- Baron-Cohen, S., Leslie, A. M., & Frith, U. (1985). Does the Autistic Child Have a "Theory of Mind"? *Cognition, 37*-46. DOI: [10.1016/0010-0277\(85\)90022-8](https://doi.org/10.1016/0010-0277(85)90022-8)
- Brede, J., Babb, C., Jones, C., Elliott, M., Zanker, C., Tchanturia, K., Serpell, L., Fox, J., & Mandy, W. (2020). "For me, the anorexia is just a symptom, and the cause is the autism": Investigating restrictive eating disorders in autistic women. *Journal of Autism and Developmental Disorders, 50*(12), 4280–4296. <https://doi.org/10.1007/s10803-020-04479-3>

- Conner, C. M., & White, S. W. (2018). Brief report: feasibility and preliminary efficacy of individual Mindfulness therapy for adults with autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 48(1), 290–300. <https://doi.org/10.1007/s10803-017-3312-0>
- Diamond, I. R., Grant, R. C., Feldman, B. M., Pencharz, P. B., Ling, S. C., Moore, A. M., & Wales, P. W. (2014). Defining consensus: A systematic review recommends methodologic criteria for reporting of Delphi studies. *Journal of Clinical Epidemiology*, 67(4), 401–409. <https://doi.org/10.1016/j.jclinepi.2013.12.002>
- Fitch, K., Bernstein, S. J., Aguilar, M. D., Burnand, B., LaCalle, J. R., Lazaro, P., Loo, M. van het, McDonnell, J., Vader, J. P., & Kahan, J. P. (2001). *The RAND/UCLA Appropriateness Method User's Manual*. RAND Health. <https://apps.dtic.mil/sti/pdfs/ADA393235.pdf>
- Halim, A. T., Richdale, A. L., & Uljarević, M. (2018). Exploring the nature of anxiety in young adults on the autism spectrum: A qualitative study. *Research in Autism Spectrum Disorders*, 55, 25–37. <https://doi.org/10.1016/j.rasd.2018.07.006>
- Happé, F., & Frith, U. (2006). The Weak Coherence Account: Detail-focused Cognitive Style in Autism Spectrum Disorders. *Journal of Autism and Developmental Disorders*. DOI <https://doi.org/10.1007/s10803-005-0039-0>
- Hobson, R. P. (2012). Autism, literal language and concrete thinking: some developmental considerations. *Metaphor and Symbol*, 27(1), 4–21. <https://doi.org/10.1080/10926488.2012.638814>
- Hollocks, M. J., Lerh, J. W., Magiati, I., Meiser-Stedman, R., & Brugha, T. S. (2019). Anxiety and depression in adults with autism spectrum disorder: a systematic review and meta-analysis. *Psychological Medicine*, 49(4), 559–572. <https://doi.org/10.1017/S0033291718002283>
- Hsu, C.-C., & Sandford, B. A. (2007). The Delphi Technique: Making Sense of Consensus. *Practical Assessment, Research, and Evaluation*, 12(10).
- Hull, L., Petrides, K. V., Allison, C., Smith, P., Baron-Cohen, S., Lai, M.-C., & Mandy, W. (2017). “Putting in my best normal”: social camouflaging in adults with autism spectrum conditions. *Journal of Autism and Developmental Disorders*, 47(8), 2519–2534. <https://doi.org/10.1007/s10803-017-3166-5>
- Johnston, K., Murray, K., Spain, D., Walker, I., & Russell, A. (2019). Executive function: cognition and behaviour in adults with autism spectrum disorders (asd). *Journal of Autism and Developmental Disorders*, 49(10), 4181–4192. <https://doi.org/10.1007/s10803-019-04133-7>

- Kabat-Zinn, J. (2005). *Full Catastrophe Living: Using the Wisdom of Your Body and Mind to Face Stress, Pain, and Illness*. Delta Trade Paperbacks.
- Kabat-Zinn, Jon. (2017). *Mindfulness-Based Stress Reduction (MBSR) Authorized Curriculum Guide*. University of Massachusetts Medical School, Center for Mindfulness in Medicine, Health Care, and Society.
<https://Mindfulness.nhs.gov.uk/media/2105/mbsr-curriculum-guide-2017.pdf>
- Kiep, M., Spek, A. A., & Hoeben, L. (2015). Mindfulness-based therapy in adults with an autism spectrum disorder: do treatment effects last? *Mindfulness*, 6(3), 637–644. <https://doi.org/10.1007/s12671-014-0299-x>
- Komisi Fatwa MUI. (2009). *Hasil-Hasil Ijtima' Ulama Komisi Fatwa Majelis Ulama Indonesia III Tahun 2009 di Padang Panjang*.
- Poquerusse, J., Pagnini, F., & Langer, E. J. (2020). Mindfulness for Autism. *Advances in Neurodevelopmental Disorders*. <https://doi.org/10.1007/s41252-020-00180-9>
- Powell, C. (2003). The Delphi technique: myths and realities. *Journal of Advanced Nursing*, 41(4), 376–382. <https://doi.org/10.1046/j.1365-2648.2003.02537.x>
- Robertson, A. E., Stanfield, A. C., Watt, J., Barry, F., Day, M., Cormack, M., & Melville, C. (2018). The experience and impact of anxiety in autistic adults: A thematic analysis. *Research in Autism Spectrum Disorders*, 46, 8–18.
<https://doi.org/10.1016/j.rasd.2017.11.006>
- Schneid, I., & Raz, A. E. (2020). The mask of autism: Social camouflaging and impression management as coping/normalization from the perspectives of autistic adults. *Social Science & Medicine*, 248, 112826.
<https://doi.org/10.1016/j.socscimed.2020.112826>
- Sizoo, B. B., & Kuiper, E. (2017). Cognitive behavioural therapy and Mindfulness based stress reduction may be equally effective in reducing anxiety and depression in adults with autism spectrum disorders. *Research in Developmental Disabilities*, 64, 47–55. <https://doi.org/10.1016/j.ridd.2017.03.004>
- Spain, D., Sin, J., Chalder, T., Murphy, D., & Happé, F. (2015). Cognitive behaviour therapy for adults with autism spectrum disorders and psychiatric co-morbidity: A review. *Research in Autism Spectrum Disorders*, 9, 151–162.
<https://doi.org/10.1016/j.rasd.2014.10.019>
- Spek, A. A., van Ham, N. C., & Nyklíček, I. (2013). Mindfulness-based therapy in adults with an autism spectrum disorder: A randomized controlled trial. *Research in Developmental Disabilities*, 34(1), 246–253.
<https://doi.org/10.1016/j.ridd.2012.08.009>

- Stark, E., Stacey, J., Mandy, W., Kringelbach, M. L., & Happé, F. (2021). Autistic cognition: charting routes to anxiety. *Trends in Cognitive Sciences*, 25(7), 571–581.
<https://doi.org/10.1016/j.tics.2021.03.014>
- Taylor, A., Tallon, D., Kessler, D., Peters, T. J., Shafraan, R., Williams, C., & Wiles, N. (2020). An expert consensus on the most effective components of cognitive behavioural therapy for adults with depression: a modified Delphi study. *Cognitive Behaviour Therapy*, 49(3), 242–255.
<https://doi.org/10.1080/16506073.2019.1641146>
- Tucker, A. C. (2013). Interpreting and treating autism in Javanese Indonesia [Publication ID: Tucker_ucla_0031D_11907] [Doctoral dissertation, University of California]. ProQuest UCLA Electronic Theses and Dissertations.
<https://escholarship.org/uc/item/0wh189mq>