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## REVIEW ARTICLE

### Reviewing Literature Regarding Overseas Art Workshops for People with Disabilities to Explore Their Satisfaction with Them

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#### ABSTRACT

This study aimed to analyze and summarize the research trends on the satisfaction given to people with disabilities by art activities/workshops abroad. The research seeks to compare the results and focus of Japanese and foreign literature in order to improve the artistic activities for people with disabilities in Japan.

This study used a systematic review (SR) of relevant foreign literature to find out how the sessions in other countries proceeded and what changes were obtained. In Japan, various art activities for the disabled have been reported to be effective. However, only qualitative studies have been conducted to evaluate them. On the other hand, many mixed studies have been conducted in other countries, which has facilitated a better statistical understanding of the changes that people with disabilities have experienced through such artistic activities.

Two main categories of satisfaction—personal satisfaction and social satisfaction—were identified through the analysis. There was a strong tendency to view mental satisfaction as an effect in many papers; for example, the effect on the mental well-being of the subject, the establishment of identity, and the enrichment of emotions. However, no particular attention was paid to returning to daily life or cultivating artistic creativity among the people with disabilities.

*Keywords:* Well-Being, people with disabilities, satisfaction, art workshops, literature review

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## 1. Introduction

In Japan, art activities for people with disabilities are becoming popular tool for building a symbiotic society, and there are many practices in the fields of art, music, drama, and dance. The Ministry of Health, Labour and Welfare and the Agency for Cultural Affairs have expanded their support programs for the arts and cultural activities for people with disabilities, and 35 centers that the support of such activities for disabled people have been established nationwide. In particular, a survey of facilities for people with disabilities in Osaka and Iwate prefectures found that almost 70% of these facilities offer art workshops, which indicates that art activities are conducted on a daily basis at these facilities<sup>1)</sup>. Also, the discovery of artists with disabilities and the commercialization of their artworks have been carried out with the support of the Japanese government.

It has been reported that the performance of artistic activities by people with disabilities significantly aids the improvement of their well-being and promotes their self-approval and satisfaction<sup>2)</sup>. It is said that artistic activities enable people with disabilities to express themselves in a novel manner, communicate non-verbally, and achieve self-acceptance and acceptance from others<sup>3)</sup>.

In recent years, many fields have focused on the satisfaction gained from artistic activities. For example, in the field of interpersonal support, it has been stated that leisure time cultural activities (including artistic activities) not only significantly impact the quality of life of people with disabilities, but also promote their social participation, reduce discrimination against them, and safeguard their human rights<sup>4)</sup>. In the field of nursing care, it was also reported that the creation of Japanese flower arrangements (ikebana) and relaxation exercises improved the well-being of disabled people who use day-care centers<sup>5)</sup>. In addition, it was reported that in psychiatric hospitals, musical activity programs that are not art therapy have become a source of enjoyment for people with mental disorders, and are used to improve their lives, treatment, rehabilitation, and discharge support. It has also been reported that its applications are expanding. For example, it is used to improve people's understanding of people with disabilities<sup>6)</sup>.

However, mostly qualitative research has been conducted on this topic. The resultant data of such research include interviews, videos, activity records and newspaper articles, which are easily influenced by the subjectivity of the researchers. In addition, it is difficult to effectively grasp the current situation of people with disabilities using psychological scales and domestic papers generally only qualitatively evaluate the satisfaction of participants. In the future, it is expected that research results will be presented with evaluation tools that cover multiple angles, such as a combination of psychological scales and statistical analysis. In the midst of such accumulated research, this study focused on the types of workshops/sessions and their impact, summarizing the research results and methods of overseas papers.

Outside of Japan, mixed research methods are often used. Quantitative and qualitative analyses are conducted simultaneously—analyzing scores on psychological scales while strengthening evidence with qualitative data. Vogelpoel<sup>7)</sup> and Jarrold<sup>8)</sup> adopted a mixed research approach to explore the satisfaction of people with disabilities who participated in arts activities. While the majority of participants were dissatisfied with their quality of life and personal well-being at the beginning of the program, most participants reported increased self-confidence, communication skills, self-esteem, and mental health scores after the program. The study used (1) semi-structured interviews, (2) cumulative qualitative analysis tools, (3) observation scales, and (4) case studies to capture the changes that the subjects underwent from multiple perspectives. Another study on the effects of arts activities on mentally disabled people in a Chinese institution for people with disabilities also used a stratified randomized controlled trial while qualitatively analyzing observation sheets of users'

daily lives. The study revealed that the participants' sense of well-being increased significantly over the course of the experimental project<sup>9</sup>).

The World Health Organization (WHO) defines health as a state of complete physical, mental, and social “well-being,” with or without illness or infirmity. Many scales have been used simultaneously in foreign studies. The Warwick-Edinburgh Mental Well-Being Scale (WEMWBS), the Patient Health Questionnaire (PHQ-9), Generalized Anxiety Disorder -7 (GAD-7), and the Social Introversion Scale (SI) are often used in assessing the psychological state of session participants, as they capture participants' mental, physical, and social well-being. We also observed that the overseas studies displayed a tendency to analyze their results in line with the concept of health as defined by the WHO.

Examining the above studies revealed that mixed research was often used and that qualitative analysis was utilized to comprehensively grasp the daily changes that each disabled person experienced, while psychological scales were used to capture the changes in their mood. In any case, through artistic activities, people with disabilities increased their sense of satisfaction, self-affirmation, happiness, and self-confidence. Additionally, such activities promoted their social participation and reduced their social isolation.

It is thus significant for Japan to grasp the direction and results of foreign studies in order to consider how to promote support for people with disabilities through art in the future, which will be led by the development of cultural activity support programs for people with disabilities.

## 2. Objective

In order to improve the artistic activities for people with disabilities in Japan, it is necessary to examine and compare the literature from Japan and other countries. Thus, this study aimed to analyze and summarize the research trends on the satisfaction given to people with disabilities (hereinafter referred to as “participants”) by art activities/workshops abroad.

## 3. Method

As a research method, this study used the systematic review (SR) (A systematic review is defined as “a review of the evidence on a clearly formulated question that uses systematic and explicit methods to identify, select, and critically appraise relevant primary research, and to extract and analyze data from the studies that are included in the review.” The methods used must be reproducible and transparent. (Undertaking Systematic Reviews of Research on Effectiveness. CRD's Guidance for those Carrying Out or Commissioning Reviews. CRD Report Number 4 (2nd Edition). NHS Centre for Reviews and Dissemination, University of York. March 2001.) method proposed by the Joanna Briggs Institute (JBI) in the U.K., which is engaged in the development and dissemination of SR in the field of nursing, and revised by the Japanese Nursing Association<sup>10</sup>). In addition, the selected articles included both qualitative and mixed studies. The JBI's qualitative review method and its critique evaluation sheet were used for evaluation. The categories were extracted using the grounded theory approach. For this purpose, qualitative and quantitative critiques were conducted in this study. The review of this study proceeded in the following five steps.

The rationale for our selection of the Joanna Briggs Institute (JBI) assessment tools is as follows: Systematic Reviews (SR) undertaken using JBI tools are required to comply with strict procedures as set out by the reviewers. These include formulating a review objective and question, defining inclusion and exclusion criteria, executing a comprehensive literature search, selecting studies for critical appraisal, evaluating the quality of the chosen studies using one or more standardized

tools, extracting data following a template, analyzing, synthesizing, and summarizing data, and eventually, writing up findings and reaching conclusions. In certain cases, these may also involve making recommendations for practice, policy, or research<sup>11</sup>).

The JBI methodology incorporates distinct evaluation approaches for both qualitative and quantitative research, referred to as the JBI Levels. These levels connect the ranking of evidence of effectiveness generally to the study design and the capacity to maximize internal validity. For instance, a randomized controlled trial (RCT) is ranked higher than a cohort or case-control study, and a systematic review of RCTs is ranked above a single RCT. Evidence hierarchies have been established as a tool to support reviewers in ranking evidence, enabling the determination of the relative strength of results procured from the studies included in the review, and thus facilitating the creation of robust and reliable conclusions<sup>11</sup>).

However, while PRISMA presents detailed guidelines, it appears that JBI allows for a more systematic analysis of the target literature when it comes to re-evaluation such as level evaluation of qualitative and quantitative studies. Hence, we have intentionally chosen to employ JBI in this paper.

### 3.1. Decide on the research question to be addressed

This study aimed to analyze and summarize the research trends on the satisfaction that art workshops give to participants overseas.

First, the research theme was positioned using the following table 1 that adopted the PICO cycle for qualitative research, which is used to concretize and capture the theme formulated in systematic reviews<sup>10</sup>).

Table 1. PICo Cycle Diagram

	Meaning	Main points of this research
<b>P</b>	Population	Persons with disabilities (disabled)
		Adults over 18 years old
<b>I</b>	Phenomena of Interest	Type of workshop/ session
		Satisfaction and changes resulting from it
<b>Co</b>	Context	In addition, we excluded sessions in which participants viewed a predetermined work of art, and include papers in which session participants participated and engaged in creative activities on their own.
		Period: Twenty years from 2000 to 2020
		Region: Full-text papers written in English in countries other than Japan

### 3.2. Inclusion and exclusion criteria

The review protocol eligibility criteria for this study was developed with reference to the “Minds Clinical Practice Guidelines, Chapter 4: Systematic Review 2020.”

Since the target of this study was foreign literature, the research team decided to limit the databases to PubMed, Google Scholar, Scopus, and Oxford Handbook Online. First-hand research was conducted twice by the first author. Followingly, literature was added based on the opinions of the second author (art management expert) and the third author (dance expert). All the articles in this study were open access, and grey literature was not used.

The articles were screened over two rounds. Their keywords and abstracts were examined in the first round, whereas their content was examined in the second round. The extracted literature included qualitative studies, case studies, and mixed studies, and qualitative extraction was used. For each critique, the JBI's recommended critique index was used. In this paper, there are a list of references, a table of critique results, and the JBI recommended evidence (table2).

Table 2. Details of Literature Use

Item	Contents
<b>The database</b>	PubMed, Google Scholar, Scopus, Oxford Handbook Online
<b>Hand searching</b>	Done: Google Scholar Search and Expert Advice
<b>Grey Literature</b>	
<b>Screening</b>	Primary screening: screening by content of article abstract Secondary screening: screening by content of article
<b>Data extraction method</b>	
<b>Classification of research designs</b>	Qualitative research, randomized controlled trials, case studies
<b>Effectiveness index</b>	Qualitative assessment and discussion, psychological scales
<b>Indicators to evaluate individual studies</b>	JBI method

### 3.3. Identification and collection of studies

Figure 1 illustrates the flowchart of the adoption process. A total of 2024 papers were collected from the electronic database, and 25 papers were selected on citations of related papers and expert advice. After two rounds of screening in accordance with the duplication and conformity criteria, 2011 papers were excluded as they did not meet the conformity criteria. As a result, 12 papers were selected as relevant papers (Table 3-1~3-4).

In accordance with the protocol, this study aimed to examine art activities/workshops that did not fall under the umbrella of "art therapy." In addition, sessions in which participants viewed predetermined artworks were excluded, and papers in which session participants engaged in their own creative activities were included. The analysis was conducted on full-text articles written in English that examined adults with disabilities in countries other than Japan over a 20-year period (2000 to 2020). Articles, books, and reports other than full-text articles were excluded from the current study. The analysis was conducted by three researchers with expertise in the fields of disability welfare, the arts, and statistical analysis. A list of characteristics of the included studies was also made (Figure 1).

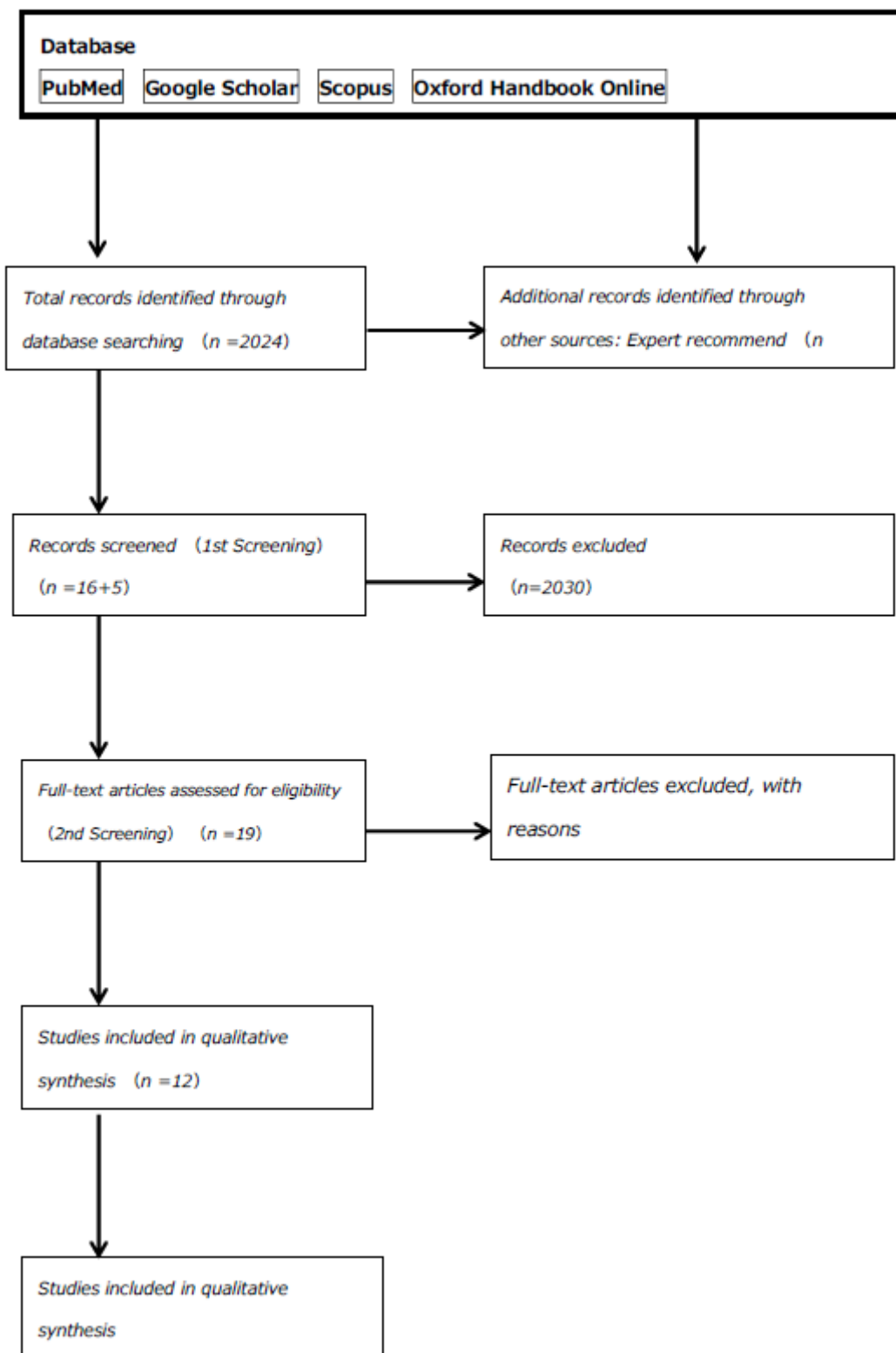


Figure 1. Literature Flowchart

Table3-1. Characteristics of Included Studies - Randomized Controlled Trial Form

Study	Country	Setting/Context	Participant characteristics	Groups	Outcomes measured	Description of main results
Rainbow T. H. Ho CKPC. 2020.	Hong Kong	The EABI group received 10 weekly 90-min sessions, with a total of 15 contact hours. Each intervention group contained 6–8 participants and was facilitated by a registered expressive arts therapist or expressive arts therapy trainee.	This study assigned 109 Chinese adults with intellectual disabilities into EABI (N = 55) or control groups (N = 54) using stratified randomization.	55(1)54©	The interview findings suggest that the EABI group was more emotionally expressive and stable after the intervention. Compared to the control group, the EABI group tended to use more diverse colors and leave less empty space in their drawings. No significant overall improvements were found in the EABI group with respect to aberrant behaviors, mood or personal well-being. Among males, the EABI participants showed significantly more anger and less energetic moods than those in the control group. Among females, the EABI participants showed significantly lower levels of aberrant behavior than those in the control group.	The results of this study suggest that expressive arts-based interventions have different effects on the emotional and behavioral well-being of male and female participants. Moreover, increased color usage may imply a more positive state of emotional well-being.

Table3-2. Characteristics of Included Studies - Interpretive and Critical Research From

Study	Methods for data collection and analysis	Country	Phenomena of interest	Setting/Context/Culture	Participant characteristics and sample size	Description of main results
Wilson GBM. 2019	thematic analysis	Italia, Ireland, U. K	What social needs associated with having learning impairments can interactive music workshops address? •How do adults with such impairments experience interactive music workshops? •What impacts on social needs do they and those around them perceive from taking part in music? •What features of the music workshops might be effective, and why?	Twenty music workshops for 37 individuals recruited via resource centers in an accessible rural area •Interviews with music staff, resource center users, their families and staff •Observation of workshops with co-researcher from service user group •Focus group with stakeholders	Thirty-seven adult service users (12 female, 25 male) were recruited via four separate centers located around Renfrewshire (a local authority in central Scotland) to take part in workshop groups on either Mondays or Fridays. Their learning difficulties ranged from mild to profound, and their levels of independence ranged from requiring constant one-to-one care to living alone in sheltered accommodation.	Taking Part in the Music Workshops: Over the 10 weeks, all groups strengthened their abilities to keep time and concentrate together, to coordinate musical exercises, and to take turns effectively. 2.Impacts of Musical Participation on Participants: Participants acquired an enthusiasm to engage in music and were able to build identity around a renewed sense of themselves as musical and accomplished.
Wilson CS. 2017.	Quantitative methods:TAG,WEMWBS,CQS Qualitative methods:interview	U. K	The aim of the study was to conduct a mixed-methods evaluation of a participatory arts programme for young people with, or at risk of, mental ill health.	The qualitative strand consisted of semi-structured interviews and focus groups with ArtZone participants at the end of their course.	122 course participants completed pre/post measures of mental illness severity and wellbeing, and 34 participants took part in interviews and focus groups.	Quantitative :1. Regarding TAG: The mean TAG score at baseline was 4.90 (SD=4.10), which significantly decreased to 4.57 (SD=3.77) after the intervention. 2. Mental Health: The mean WEMWBS score increased significantly from 15.37 (SD=6.56) at baseline to 20.47 (SD=5.75) after the intervention: z=8.229, p<.001. 3. Satisfaction: 113 participants completed the CSQ after the course. The mean score was 29.46 (SD=3.13), indicating that the participants were very satisfied with the course. Qualitative: 1.A number of focus group and interview participants reported enjoyment of the arts activities; described how they provided a distraction and a sense of escapism; and helped to normalise their situations. 2.Nearly all interview and focus group participants said that they learnt new relaxation and self-soothing techniques as a result of being on the programme. 3. Empowerment and increased confidence 4. Increased motivation 5. Changes at a social level:Participants reported a considerable impact of the arts programme on social 6.interactions and relationships between the patients themselves, between patients and staff, and between patients and the artists facilitating the groups. 7.Most participants reported that they made new friendships and established contextspecific support networks with other participants. 8. Relationships between medical staff and patients Improved relationships between artists and patients
Emma Gentle PO. 2020.	A single iterative case-study design was employed using participatory action research (PAR) methodology	Australia	How does semi-directed facilitation of an art group impact connection for its neurodivergent participants? Can the art space contribute to authentic inclusion that increases belonging?	Methods included: three participants think aloud (T/A) groups, nine researcher observations, and nine third-party interviews. The data were thematically analyzed then triangulated using three different sources.	The study included nine participants with intellectual disability and one with an acquired brain injury who regularly attend art-making workshops, along with eight of their chosen arts advocates.	There was an increase in participants' quality of life. Art processes created a deeper sense of self, along with an interconnectedness within the art group. It reached beyond the studio through the community's interaction with the artworks, and the artists, indicating creativity as a path to enriched connection.

<b>Mohatt N HB. 2015.</b>	This study is part of a longitudinal, community-based participatory research (CBPR) project that examines the impact of participatory public art on adults and youth enrolled in behavioral health services and on the distressed city neighborhoods in which they live and participate in services.	U. K	The objective of this study is to identify individual mechanisms of change that result from engaging in an innovative participatory public art project for persons with significant behavioral health challenges.	The intervention consisted of teams of artists who worked at identified partner agencies for approximately 9 months to paint and install a large mural in a public space.	264 adults participated in the intervention and evaluation, with 71 % of the total sample identifying as African American and 94 % as a person of color.	(1) friendship, (2) sense of self, (3) giving back, and (4) hope. The two cases indicate that the development of a strengths-based sense of self through art was accompanied by a growth in personal social responsibility. The two cases also indicate that participatory public art may have a profound impact on the internalization of stigma. The findings support the value of participatory public art as a strategy for blending recovery and public health perspectives to promote both individual and community wellness.
<b>Lawson J RF. 2014.</b>	interviews were analysed using interpretative phenomenological analysis.	U. K	To explore the psychosocial benefits of participating	Single semi-structured interviews were conducted by the first author with each research participant, lasting up to 60 minutes.	Single semi-structured interviews were conducted by the first author with each research participant, lasting up to 60 minutes.	Participants were able to build their confidence and recognise their own worth. This phenomenological study confirmed that for people living with mental health problems, lengthy immersion in art-making, acquisition of artistic skills and knowledge, and a socially inclusive group context all help to construct an identity that is less stigmatised and less defined by 'mental illness' labels.
<b>Vogelpeel NJ. 2014.</b>	The research took a mixed-methodological approach, conducting and analysing data from interviews and dynamic observation proformas with facilitators and quantitative psychological wellbeing scores with participants throughout the course of the programme. Observations and case study data were also collected to complement and contextualise the data sets.	U. K	he purposes of this paper is to describe the benefits of a social prescribing service for older people with sensory impairments experiencing social isolation. The paper draws on the findings from a 12-week programme run by Sense, a voluntary sector organisation, and illustrates how integrated services, combining arts-based participation and voluntary sector support, can create positive health and wellbeing outcomes for older people.	The research, taking a mixed method approach, combined the Warwick and Edinburgh Mental Wellbeing Scale (WEMWBS); a self-reporting measure completed at the first and last session; with accumulative qualitative analysis tools and memberchecking methods such as an observation scale, case study approach and interviews with staff	Local participating GPs referred or "prescribed" 12 participants to the programme; nine females and three males ranging in age from 61 to 95 years, with an average age of over 80, all of whom had been identified as sensory impaired and socially isolated.	Data analysis highlighted common outcomes for the majority of the 12 participants involved in the programme. At the start of their involvement, dissatisfaction was widespread amongst the participants in relation to their perceived quality of life and personal wellbeing. Most participants highlighted the barriers they were facing in relation to access, inclusion, inter-personal relationships, physical and psychological wellbeing and autonomy, as well as receiving support for their dual-sensory impairment. At the end of the 12-week programme the findings highlighted that significant social and health-related gains had been made by the participants.
<b>Van De Venter EB. 2015.</b>	A mixed methods approach	U. K	The aim was to assess mean change in Warwick Edinburgh Mental Well-being Scale (WEMWBS) scores following participation in AoR and then qualitatively explore associations found between individual and contextual factors with differential changes in well-being.	People with mild-to-moderate mental health problems were referred to one of four artist-facilitated groups, held in inner-city GP practices or community centers. All participants were exposed to a range of activities over the 20-week intervention period including, but not exclusively, painting, textiles, music, photography and film. One group was provided for mothers with infants; the other groups were open to all. The scheme aimed to improve participants' well-being and social capital through collective engagement in creative arts, increased social contact and community engagement. Further details of the scheme can be found in a previous report.	44 volunteers	Mean well-being scores improved by 8.0 (95% CI 4.8-11.3, P < 0.0001); the number of sessions attended and baseline scores were positively associated with outcome score. Participants from Black and Minority Ethnic (BME) groups and females appeared to show greater improvement in well-being scores than White British or male participants. Qualitative interviews supported and further explained these findings and suggested differential impacts of AoR may, in part, be explained by the importance of sharing experiences, reduced social isolation and external stressors.
<b>Van Lith TF. 2011.</b>	This research used qualitative in-depth interviews to explore the role of art making in the mental health recovery journey. The sample comprised 18 consumer participants who attended art-based programs in two psychosocial services in Victoria, Australia. The 60-90 min interviews were analyzed using interpretative phenomenological analysis.	Australia	The current study inquiries into mental health consumers' lived experiences of art making within psychosocial rehabilitation services and their views on how art making supports mental health recovery.	This study was conducted in collaboration with Prahran Mission and Mind Australia, two of the largest psychosocial rehabilitation services in Victoria, Australia. In both services, a broad spectrum of arts-based practices is currently provided with a strong leaning towards the visual arts as the main modality. This includes activities such as painting, drawing, sculpture, ceramics, and textiles.	The sample comprised 18 volunteer mental health consumers who were actively engaged in an art making program (6 males and 12 females)	Feelings of belonging, security and encouragement are provided by the setting. The facilitator guides yet provides freedom and support to assist in expanding one's potential. The group creates a sense of connectedness by providing acceptance, encouragement and socialization. Absorption in the creative process enables a sense of wholeness and perspective. Releasing tensions through the art making process leads to a sense of becoming empowered. Experiencing challenges and rewards in art making creates a will to achieve and keep developing. The image gives insights about emotions, feelings and wellness. Communicating and reflecting on intimate and personal meanings gives a sense of validation. Gaining motivation, encouragement and a connection with others.



<b>SUSAN POTTER. 2015.</b>	This mixed methods investigation contained participant elements across two time periods, using a combination of quantitative and qualitative methods. For the quantitative strand, participants were asked to complete scales measuring aspects of wellbeing, anxiety, depression and social inclusion before starting their 12-week workshop programme (T1) and again at the end of the 12 weeks (T2). In the qualitative strand, semi-structured interviews were held with a sample of participants, again at the beginning and end of the workshop programme, to explore their expectations and experiences of Arts on Prescription. Interviews were audio-recorded and transcribed for analysis.	U. K	re there changes in participants' self-reported levels of anxiety, depression, social inclusion and wellbeing across the duration of the programme? If so, do individual participants experience similar and/or comparable changes? To what factors do individual participants attribute such changes? How might this learning inform further development of the Arts on Prescription programme and research in the field more broadly?	Arts on Prescription comprises a 12-week arts programme, delivered by one professional artist, supported by one mental health counsellor. Each weekly workshop lasts two hours and includes a range of visual arts activities (e.g. drawing, collage, stitching, clay and wire work).	The participants (N = 45) comprised 16 males and 29 females, ranging in age between 18 and 74 years. The minority (n = 10) of participants were in employment or retired, while the majority (n = 35) had been out of paid employment for several years due to disability and/or mental health issues, including anxiety, depression, bipolar disorder, eating disorders and psychosis.	1. the majority of participants rated their experience of Arts on Prescription highly. 43 (95.5%) participants reported that they had enjoyed the program and would recommend the program to a friend. 35 (77.7%) reported a development in their art skills, through taking part in Arts on Prescription. 29 (64.4%) reported an increase in confidence, while 32 (71.1%) reported an increase in motivation. Finally, 31 (69%) reported feeling more positive about themselves after taking part in the Arts on Prescription program. Importantly, of those individuals who attributed positive outcomes to the program, there were once again close parallels noted in those who reported decreased anxiety and depression and increased social inclusion and wellbeing. Similarly, for the minority of individuals who rated the program negatively, there were parallels noted between a self-reported increase in anxiety and depression with a decrease in social inclusion and wellbeing. 2. Effect: Rebuilding identity: Self-acceptance Autonomy Making connections: Positive relations with others Environmental mastery Expanding horizons: Environmental mastery personal growth A sense of purpose: Purpose in life Personal growth The need to create: Personal growth Autonomy
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Table3-3. Characteristics of Included Studies - Text and Opinion Study Form

Study	Type of text	Population represented	Topic of interest	Topic of interest	Stated allegiance/position	Description of main argument(s)
<b>Gillam T. 2018.</b>	text and opinion	Mental Health services user	my focus has been on the wellbeing of the providers and users of mental health services, implicit in all of this is an assumption that the mental health and wellbeing of the wider community can be enhanced through creative activity. This paper seeks to explore this aspect further. My particular interest is in music and creative writing but what I discuss can apply just as much to any creative arts activity.	The approach taken is to draw selectively on research in the field of creativity, creative arts and wellbeing, focusing in particular on the use of music and creative writing, and to incorporate learning from clinical experience to explore what is understood about the health and wellbeing benefits of creative arts activity.	The purpose of this paper is to explore how participation in creative arts activity can enhance public mental health and wellbeing.	There is evidence that creative arts activity is beneficial to mental health and wellbeing. Arts activities that involve active participation appear to offer the greatest benefits. Creative arts participation can help people with diagnosed mental health difficulties to recover from mental illness. Moreover, creative arts activities can also promote wellbeing in the general population.

Table3-4. Characteristics of Included Studies - Systematic Review and Research Syntheses Form

Study	Review objectives	Descriptions of interventions/phenomena of interest	Descriptions of outcomes included in the review	Descriptions of contexts included in the review	Search details	Number of studies and participants included	Appraisal instruments used	Description of main results
<b>Steven Bagienski · Gustav Kuhn. 2019.</b>	Changes in Well-Being through magic	3.1 Witnessing magic: deeper appreciation 3.2 Discovering magic secrets: motor and social skills 3.3 Performing magic: happiness 3.4 Teaching with magic: curiosity	Magic is an ancient entertainment form, and in the last decade we have witnessed growing scientific interest in understanding the experience of magic (Leddington, 2016; Lamont, 2017; Rensink & Kuhn, 2015a), as well as cognitive mechanisms that enable magicians to create these unique experiences (Kuhn, Caffaratti, Teszka, Rensink, 2014). The science of magic has started to build bridges between the scientific community and magicians applied psychological knowledge and experience. As seen in this review, magic has also been used to enhance wellbeing in physical, affective, cognitive, and social domains throughout both active programs and emerging empirical studies.	A common application for these programs is physical therapy, but other settings include schools, hospitals, psychological therapy, and lifestyle intervention. Empirical studies show positive effects, but many have weak methodologies, warranting further research.	non	19	non	We have observed that witnessing magic enhances affective and cognitive wellbeing by inspiring intense curiosity and interest, which have been used as a distraction therapy. Similarly, discovering secrets of magic was linked to wellbeing, as pleasant emotions from insight experiences. Performing magic builds upon these effects by showcasing improvements in social and motor skills, while retaining at least some aspects from prior stages. Using magic to teach might cultivate a deep sense of meaning and appreciation for one's teaching contributions. During each of these stages, there appears to be a sense of wellbeing, motivating progress toward the next stage.

### 3.4. Analysis—Level of evidence level

In this study, the 12 selected studies were analyzed to determine if they were eligible. For this step, a critique was conducted using the JBI's statistical software, called System for the Unified Management, Assessment and Review of Information (SUMARI). The level of evidence for qualitative research was indicated (descending order: I (high)~IV(very low)). A total of nine references were evaluated for the level of evidence of qualitative research, and for other reports, only the results of the critiques were shown. The recommended levels were also attached.

The level (Dependability) of evidence for qualitative research in this study was based on the ConQual approach recommended by the JBI. (ConQual helps users of qualitative systematic reviews to establish the credibility of the evidence generated by these types of reviews, making it a practical tool to support decision making.) Specifically, all eligible papers were critiqued using SUMARI. Next, we focused on the qualitative critique questionnaire of each study. Questions 2 to 4 and 6 to 7 of the questionnaires were items that queried the reliability of the paper. With 4–5 'yes' responses, the paper remained unchanged; with 2–3 'yes' responses, it was moved down 1 level; with 0–1 'yes' responses, it was moved down 2 levels. (This is measured by asking questions related to the appropriateness of the conduct of the research with research aims and purpose:

Context:

1. Is there congruity between the research methodology and the research question or objectives?
2. Is there congruity between the research methodology and the methods used to collect data?
3. Is there congruity between the research methodology and the representation and analysis of data?
4. Is there a statement locating the researcher culturally or theoretically?
5. Is the influence of the researcher on the research, and vice-versa, addressed?

Evaluation criteria: 4–5 'yes' responses, the paper remained unchanged; 2–3 'yes' responses, moved down 1 level; 0–1 'yes' responses, moved down 2 levels.)

"Credibility" was measured by assigning a level of credibility to the synthesized findings. The JBI recommended level, which includes the credibility score, is also shown in Table 4.

Next, the quantitative research, literature review, and descriptive studies were conducted using the GRAND approach recommended by the JBI, (Developed by the Joanna Briggs Institute Levels of Evidence and Grades of Recommendation Working Party October 2013) which evaluates based on five aspects: level of evidence for effectiveness, for diagnosis, for prognosis, for economic evaluation, and for meaningful enrichment.

In addition, due to the small sample size of this study, "not applicable" was used for the evaluation items that were not applicable to the medical articles(table5~7).

Table 4. Qualitative Research (n=9)

Citation	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Dependability	Credibility	ConQual	JBI Grades of Recommendation
Gentle and O'Brien 2020	Y	Y	Y	Y	Y	U	U	Y	Y	Y	All unequivocal	Downgraded (-1) Level	IV	A
Wilson and MacDonald 2019	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	All unequivocal	Downgraded (-1) Level	II	A
Wilson CS. 2017	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	All unequivocal	Downgraded (-1) Level	II	A
Mohatt et al. 2015	U	Y	U	N	U	N	N	Y	Y	Y	Downgraded (-2) Level	Downgraded (-3) Level	IV	B
Susan 2015	Y	Y	Y	Y	U	U	U	Y	Y	U	Downgraded (-1) Level	Downgraded (-2) Level	IV	B
Van de Venter and Buller 2015	Y	Y	Y	Y	U	U	U	Y	Y	Y	Downgraded (-1) Level	Downgraded (-2) Level	IV	B
Lawson et al. 2014	U	Y	Y	Y	Y	N	N	Y	Y	U	Downgraded (-1) Level	Downgraded (-2) Level	IV	B
Vogelpoel and Jarrold 2014	Y	Y	Y	Y	Y	U	U	Y	Y	Y	All unequivocal	Downgraded (-1) Level	II	B
Van Lith et al. 2011	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	All unequivocal	Downgraded (-1) Level	II	A

Table 5. Randomized Controlled Trial(n=1)

Citation	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Evidence Level
Rainbow T. H. Ho CKPC, 2020	N	Y	Y	U	U	U	U	Y	Y	Y	Y	Y	N	Levels of evidence for effectiveness: 1-c Level of evidence for diagnosis: -- Level of evidence for prognosis: 3-b Level of evidence for economic evaluation: 7 Level of evidence for meaningfulness: 1

Table 6. Systematic Review and Research Syntheses (n=1)

Citation	Q1	Q2	Q3	Q4	Q5	Q6	Evidence Level
Gillam 2018	Y	Y	U	Y	Y	N	Levels of evidence for effectiveness: 5-a Level of evidence for diagnosis: -- Level of evidence for prognosis: 5-c Level of evidence for economic evaluation: 7 Level of evidence for meaningfulness: 5

Table 7. Text and Opinion Study (n=1)

Citation	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Evidence Level
Bagienski and Kuhn 2019	N	U	U	N/A	N/A	Y	U	N	N/A	U	Y	Levels of evidence for effectiveness: 5-a Level of evidence for diagnosis: -- Level of evidence for prognosis: 5-c Level of evidence for economic evaluation: 7 Level of evidence for meaningfulness: 4

#### 4. Results

##### 4.1. Attributes of the subjects (table 8)

As shown in the table, with regard to the attributes of the subjects, except for the case studies and literature review, the number of papers on people with mental disabilities was 6, that for people with physical disabilities was 3, and that for people with learning disabilities and intellectual disabilities was 2 each (with duplicates).

##### 5)-2. Countries of the target papers

The countries of the target papers are summarized in Table 9. Although there were cases where researchers from more than one country worked on a single paper, researchers and references from the U.K. were the most common. Hong Kong, Italy, and the Republic of Ireland had the fewest number of occurrences (1 each).

Table 8. Disability Category of Participants

Category	Volume
Mental disability	6
Physical disabilities	3
Learning disabilities	2
Intellectual disability	2

Table 9. Countries

Category	Volume
United Kingdom	9
Australia	2
Hong Kong	1
Italy	1
Ireland	1

## 4.2. Content of the sessions

The content of the sessions conducted in the target literature are summarized in Table 10. The sessions were divided into four broad areas: music, art, physical expression, and crafts. Some of the sessions were more creative in nature, such as painting, collage, clay, and art-making, as opposed to film and music appreciation. The diversity of artistic activities in each program was also noticeable, with multiple artistic activities being offered on a regular basis rather than a single activity.

## 4.3. Research methods (table 11)

As shown in the table below, qualitative research was more common than quantitative or mixed research in the research approach of the target article. Among them, qualitative research included the matic analysis, participant observation, and interpretive phenomenological analysis. In addition to qualitative studies, mixed studies included quantitative studies such as the Warwick and Edinburgh Mental Well-Being Scale (WEMWBS), the Patient Health Questionnaire (PHQ-9), and randomized controlled trials.

Table 10. Session Details

Session Types	Contents
Music	Music games, playing, skill training
Painting	Painting, spray painting, drawing art in public spaces
Performance using the body	Dance/simple body movements, theater, magic direction
Handicrafts	Art-making, clay, wire work, sculpture, ceramics, weaving
Others	Collage, stitching, photography, textiles, literature, watching movies, stop frame animation, art projects, community art, walking/traveling

Table 11. Analysis Method

Research Approach	Contents
Qualitative research	<ul style="list-style-type: none"> <li>• Subject analysis</li> <li>• Participatory observation</li> <li>• Interpretive phenomenological analysis (IPA)</li> </ul>
Mixed research (items other than qualitative research)	<ul style="list-style-type: none"> <li>• Warwick and Edinburgh Mental Wellbeing Scale(WEMWBS)</li> <li>• Patient Health Questionnaire(PHQ-9)</li> <li>• Generalized Anxiety Disorder -7(GAD-7)</li> <li>• Social Introversion Scale(SI)</li> <li>• Client satisfaction questionnaire</li> <li>• Randomized controlled trials</li> </ul>
Case Study	<ul style="list-style-type: none"> <li>• Case comparisons</li> </ul>
Literature Review	<ul style="list-style-type: none"> <li>• Review similar to SR</li> </ul>

#### 4.4. Research questions in the target literature:

Since there are no existing categories or definitions for the research questions in the target literature, we used the grounded theory approach to categorize them (which seems to be highly valid since it extracts and uses keywords that are characteristic and representative of the articles). In addition, if a single research paper consisted of many components, we divided them into different categories. For example, a session of artistic activities for people with disabilities spanned multiple genres, and the results were diverse. Also, the analyzed papers sometimes contain multiple research questions. For this reason, in this study, we assigned a category for each research question.

As shown in Table 12, a significant portion of the reviewed literature focused on enhancing the well-being of people with disabilities. The most commonly used terms in these papers were well-being, happiness, and satisfaction—the improvement of which were demonstrated using psychological scales and semi-structured interviews. Improvements in social life were explained through various aspects such as interactive experiences, social and community participation, the sense of community affiliation, and the psychosocial effects of art projects. Common changes were defined as the common aspects of the changes that the participants demonstrated throughout the experimental program of the study, and further development was defined as how these artistic activity sessions for people with disabilities can be expanded in the future and how they can contribute to society.

Table 12. Category

Category	Definition and interpretation
Effects on Happiness	Increased emotional well-being, decreased abnormal activity 4); positive well-being outcomes 5); happiness, curiosity 1); increased WEMWBS 8); mental health recovery 9); well-being recovery 12).
Improvement in social life	Interactive experiences, effective features for people 12); sense of belonging 2) ; psychosocial effects 5)
Mechanism of change	Personal change and its content through art projects 6)
Common change experiences	Common “collaborative” experiences of participants throughout the program 2)
Further development	Contributing to inclusion 2); taking up the arts program and spreading it widely 7)
Creative activities	Activities carried out by creative acts from participants such as music, literature, magic, accessories, painting, etc. (all references)

#### 4.5. Exploring satisfaction

This study aimed to thoroughly explore the satisfaction that people with disabilities derived from their participation in art workshops/activities. For this purpose, the results of each of the survey papers were analyzed using the categorization method of the grounded theory approach (table 13).

Table 13. Semantic Classification of Well-Being

Personal Satisfaction		Social Satisfaction	
Return to daily life	Mental well-being	Promote communication and social participation	Draw out artistic creativity
Freedom and support	Emotion wellness	Expressivity	Creativity
Life of balance and wellness	Self-regulation	Interpersonal relationships	The need to create
Be motivated	Gratification	Belonging, security	
Reduced social isolation	Stress reduction	Sense of connectedness	
Daily Value	Deepened understanding	Establishing new friendships	
Expanding horizons	Imaging	Communication	
	Relationship	Making connections	
	Increased self-confidence	Restrictions on the location of the event	
	Mental wellbeing	Connection	
	Self-value	Getting out of one's shell	
	Sense of accomplishment	Breaking social isolation	
	Identity		
	Self-acceptance		
	A sense of purpose		
	Normalizing emotions		
	Therapy		

The results of the analysis were mainly divided into two main categories: personal satisfaction and social satisfaction. Furthermore, “personal satisfaction” was divided into “mental well-being” and “returning to daily life,” whereas “social satisfaction” was divided into “promoting communication and social participation” and “cultivating artistic creativity.” The results revealed that there was a strong tendency to view mental satisfaction as an effect. For example, mental well-being, identity, and emotion wellness were mentioned. However, no particular attention was paid to returning to daily life or cultivating artistic creativity.

## 5. Discussion

### 5.1. Sessions

As summarized in Table 10, the most commonly used projects were art activities that simultaneously incorporated a variety of art activities. Van Lith et al<sup>9)</sup> conducted art-making workshops, which involved painting, drawing, sculpture, ceramics, and weaving, for 18 participants with mental disabilities. The activities were diverse and individual art was displayed in regular art exhibitions. A participatory arts program—a project that included activities such as walks, trips, and art-making—was also organized for 12 elderly participants with sensory disabilities<sup>12)</sup>. The project included not only art-making, but also handshake sessions and discussions to promote the participants’ social participation and communication. Lawson et al<sup>13)</sup> also analyzed mentally disabled people who participated in art projects for more than two and a half years. Other studies that also conducted art-making sessions included Gentle and O’Brien’s<sup>14)</sup> study of group

art-making in Australia and Susan Potter's<sup>15)</sup> visual art activity sessions that included drawing, collage, clay, and wirework.

In terms of studies that examined a single art activity, such as a music session, Wilson and MacDonald's<sup>16)</sup> study involved a music workshop for 37 disabled people. The sessions primarily included group music exercises followed by instrumental training (e.g., guitar, singing) and original songwriting. Mohatt et al.'s<sup>17)</sup> study examined drawing sessions in which participants with mental disabilities painted large murals in public spaces, designed murals, and planned activities.

In terms of overall numbers, of the 12 research papers, 7 conducted sessions that involved art-making. Although the sessions had different names, the content tended to be similar. In the literature reviewed, participants in the studies with art-making sessions were mainly mentally disabled people who were able to make simple objects on their own. However, those with intellectual disabilities, learning disabilities, multisensory disabilities, etc. who required assistance were introduced to art-making in a more gradual manner, mainly through art appreciation, choral singing, and communication.

## 5.2. Satisfaction and the changes resulting from it

In the target literature, the satisfaction gained from arts activities/workshops has been described in various terms. In terms of quantitative results, it was validated with scores on psychological scales and questionnaires such as the WEMWBS, the PHQ-9, the GAD-7, the SI, client satisfaction questionnaires, and randomized controlled trials. The results showed that artistic activities significantly increased the satisfaction and happiness of people with disabilities.

On the other hand, in the qualitative results (Table 13), the satisfaction of people with disabilities was divided into two categories: personal satisfaction and social satisfaction. Personal mental satisfaction was specifically mentioned in many studies. Vogelpoel and Jarrold<sup>12)</sup> found that the mental satisfaction of people with disabilities who participated in art activity sessions increased, and mentioned that such activities were also helpful in sharing their experiences, reducing their social isolation, and partially reducing their stress. In this context, participants felt their social roles as women/men through art-making, leading to emotional normalization; participants became proud of their work, believed in their abilities, and generated a positive self-image. Wilson and Sharpe<sup>7)</sup> found that the Zinc Arts ArtZone program helped participants to change on a personal level by increasing their empowerment, self-confidence, and motivation, and on a social level by building relationships between participants, between participants and staff, and between participants and the group around them, which led to friendship and mutual trust. In questionnaires about the art project, some of the participants wrote: "By participating in the group, I was able to build relationships with other patients in the ward" and "I like to be connected with people." Another participant stated: "I like to work on each art-making individually," which signifies that they did not want to work on art-making in a group.

Additionally, a recent study by Rainbow et al.<sup>18)</sup> on the intervention effects of music sessions on a group of people with intellectual disabilities found that the intervention promoted their behavioral and psychological well-being. It stated that they became more expressive in both verbal and non-verbal communication. Another study by Wilson and MacDonald<sup>16)</sup> targeted people with learning disabilities and stated the participants' confidence improved as a result of the music sessions, and that they were happier and more relaxed.

As mentioned above, people with disabilities found that their psycho-social satisfaction was improved by the art activity sessions. Continuing the sessions not only satisfied the people with disabilities themselves, but also facilitated the creation of a symbiotic society and the provision of new ideas for communication art<sup>13)</sup>.

## 6. Conclusion

This study aimed to analyze and organize the trends of research in foreign papers on the satisfaction provided by art activities/workshops to people with disabilities in order to obtain knowledge that would facilitate future Japanese research. The following suggestions were obtained by analyzing the examined papers' research questions and research methods, the attributes of their subjects, the content of the sessions conducted, and the satisfaction derived by the participants.

Regarding the level of evidence in the target literature, the qualitative studies (the qualitative research part of the mixed studies) had an overall high JBI evidence level, with five of the nine studies reaching Level I. The qualitative assessment in the literature included in this study met the checklist high level and was seen as reliable and scientifically conducted and validated. In contrast, the literature review, randomized controlled trials, and expert opinions were seen as not having a high JBI evidence level, based on the overall judgment of description methods, sample size, and study design.

Among the overseas research methods, there were few research designs that used only qualitative or only quantitative studies. In contrast, there were many studies that used mixed research, where qualitative research was used to supplement data on particularities that quantitative research could not explain, or where quantitative research was used to supplement generalities that qualitative research could not reach. On the other hand, in Japan, research on artistic activities and their workshops aimed at improving the satisfaction of people with disabilities is still mostly qualitative research, and no mixed research has been found. In the future, it will also be necessary to visualize and show data on the impact of artistic activities, which are a promising route to promote artistic activities for people with disabilities, to help them reintegrate into society and to support their leisure time.

Among the results of overseas studies, it was found that creative artistic activities such as art-making and other activities in which participants voluntarily made things and created artworks have been more common than single art sessions. The sessions had a positive effect on both individuals with disabilities and society, and specifically on the individual level, they focused on the inner life of the person, citing "Return to daily life" and "Mental well-being". At the social level, the focus was on the external aspects of the person: "Promote communication and social participation" and "Draw out artistic creativity". Either way, both the internal and external content categories emphasized "human connection" and "communication. Perhaps the promotion of communication and a return to community will be extremely important points in the process of improving satisfaction. By the way, among such results, the artistic skills of the participants were also mentioned. However, no special attention was paid to the development of participants' artistic skills or training of techniques, which suggests that the target literature of this study was not to find artists with disabilities, but rather to help isolated individuals achieve mental health and promote social and community participation. On the other hand, there was a lot of bias in the research subjects, and many of the research subjects were mentally disabled. It was suggested that there is a need to report on people with other disabilities in the future. Therefore, many studies in Japan have examined how the participants (people with disabilities) were able to change, reintegrate into society, build human relationships, and connect with their surroundings through artistic activities, rather than their artistic skills and techniques, and whether they were able to return to social relationships and normal life.

About the discussion, there are two main implications for research in Japan. One is related to research methodology, which is that the reliability of research can be increased by using mixed studies. The other is that in order to improve the Well-Being of people with disabilities, it is necessary to focus on "participation" and "communication" as mediated by artistic activities.



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