

# ANALYSIS OF THE RELATIONSHIP BETWEEN THE DRAW A PERSON TEST (DAP) BASED ON KAREN MACHOVER'S THEORY AND ANXIETY DISORDERS

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## Abstract

This study explores the relationship between the Draw a Person Test (DAP) based on Karen Machover's theory and anxiety disorders in individuals. The DAP is a projective test that represents self-projection through human figure drawings, reflecting emotional dynamics and personality traits. The study focuses on how drawing elements such as figure size, line pressure, and spatial placement illustrate different levels of anxiety. The analysis integrates Machover's classical theory with recent empirical findings showing changes in anxiety expression through drawings before and after art therapy interventions. Results indicate that DAP effectively reveals emotional conditions that are difficult to express verbally, where thick and repetitive lines signify emotional tension, while lighter strokes and balanced composition reflect reduced anxiety. These findings confirm the ongoing relevance of Machover's theory in modern psychology, particularly as a nonverbal assessment tool to understand and monitor the emotional dynamics of individuals experiencing anxiety.

**Keywords:** Draw a Person Test, Machover theory, anxiety, projective test, emotional expression.

## 1. INTRODUCTION

Anxiety is a painful and unpleasant feeling. Someone experiencing anxiety tends to experience disturbances in their self-balance, such as feeling tense, restless, afraid, nervous, or even sweating excessively. The level of anxiety that appears can differ for each individual. These levels are divided into mild, moderate, to severe anxiety, which causes panic in the individual and can sometimes hinder the individual in performing a task. According to Jarnawi (2020), anxiety impacts behavioral changes such as withdrawing from the environment, difficulty focusing on activities, loss of appetite, irritability, low anger control, illogical thinking, and difficulty sleeping.

To understand the dynamics of anxiety more deeply, psychologists use various assessment tools, one of which is projective tests. One of the most well-known forms of projective tests is the Draw A Person Test (DAP), developed by Karen Machover (1949). This test is rooted in the psychoanalytic view, where the human drawing created is considered a reflection of the individual's perception of themselves and their body representation. Although the drawing generally depicts the self-image and body image of the creator, the resulting drawing can also reflect changes in mood or attitudes influenced by certain conditions. Through the activity of drawing a human figure, a person can channel and express the feelings they feel towards themselves

or others. The procedure usually used in this test is quite simple, namely by asking the individual to draw a human according to their imagination (Nastiti, 2019).

According to Machover's theory, the resulting human drawing not only depicts body image or self-concept but also reveals the emotional dynamics currently taking place. For example, individuals experiencing anxiety tend to draw with strongly pressed lines, rigid body shapes, or repeated erasures on certain parts such as hands or face. Conversely, calmer individuals usually draw with soft lines, balanced body proportions, and more open facial expressions. This aligns with the basic psychoanalytic principle that nonverbal expression, including in the form of drawings, is a direct reflection of subconscious content that is difficult to express through words. The Draw A Person Test is not only used to assess personality but also to explore emotional aspects such as anxiety, guilt, aggressiveness, and the need for affection. In a clinical context, DAP is often used as a tool in diagnosis, counseling, and psychotherapy because its nonverbal nature allows individuals to express feelings freely without pressure. Important elements in DAP interpretation include image size, line pressure, limb proportions, and figure position on the paper. Small-sized drawings generally indicate a lack of self-confidence, fear, or feelings of helplessness, while large-sized drawings indicate a need to assert oneself and show existence. Strong line pressure indicates emotional tension or inner conflict, while soft lines indicate calmness and emotional stability. The position of the drawing at the bottom of the paper can be interpreted as feelings of inferiority and a need for stability, while drawings placed in the center of the page indicate balance, self-confidence, and a sense of control over the environment (Machover, 1949).

Thus, the Draw A Person Test plays a very important role in psychological assessment, especially in understanding anxiety dynamics nonverbally. This test is capable of revealing inner content hidden beneath consciousness without requiring high verbal ability, making it very useful for individuals who find it difficult to express emotions directly, such as children, adolescents, or adults experiencing severe psychological pressure. DAP becomes an effective means to interpret emotional symbols through visual forms, which ultimately helps psychologists understand personality conditions, intrapsychic conflicts, and a person's anxiety level more deeply. This test is also often combined with art-based interventions (art therapy), where the drawing process serves not only a diagnostic function but also a therapeutic one that helps individuals channel emotional tension and reorganize their psychological balance.

Based on the background described above, this study addresses several key problem formulations. Primarily, it seeks to understand how Karen Machover's theory explains the relationship between Draw a Person Test (DAP) results and individual anxiety. Additionally, it investigates the specific image aspects that reflect signs of anxiety according to the Machover approach, and examines why projective tests like DAP remain relevant for revealing emotions that are difficult to express verbally.

In line with these problems, the objectives of this study are to analyze the relationship between Draw a Person Test (DAP) results and anxiety levels based on Karen Machover's theory. Furthermore, this research aims to identify the image aspects that reflect signs of anxiety in projective interpretation. Finally, it seeks to explain the relevance of using the DAP projective test as a nonverbal assessment tool to understand individual emotional conditions.

## 2. METHODOLOGY

This study adopted a qualitative research design employing a narrative literature review approach to examine the conceptual and interpretative framework of the Draw-A-Person Test (DAP) based on Karen Machover's psychoanalytic theory, with particular emphasis on its application in understanding anxiety-related emotional dynamics. This methodological approach was deemed appropriate given the study's objective to synthesize theoretical perspectives and empirical findings rather than to generate primary data.

Data were derived exclusively from secondary sources, including peer-reviewed international and national journal articles, scholarly books, and authoritative academic publications addressing projective psychological assessment, the Draw-A-Person Test, Machover's theory of personality projection, and anxiety disorders. Relevant literature was systematically retrieved from academic databases such as Google Scholar, complemented by reference tracking to ensure comprehensive coverage of influential and methodologically sound studies.

The literature selection process involved systematic identification, screening, and critical appraisal of sources based on their relevance to the research objectives and theoretical rigor. Particular attention was given to studies discussing core interpretative indicators of the DAP, including figure size, line pressure, spatial placement, body proportions, and symbolic body features, as these elements are central to Machover's interpretative framework in revealing emotional tension, anxiety, and self-concept.

Data analysis was conducted using a descriptive-analytical synthesis, whereby Machover's classical theoretical propositions were critically compared with findings from contemporary empirical research. This analysis focused on identifying consistent patterns in how visual characteristics of human figure drawings reflect anxiety-related emotional states and intrapsychic conflicts. Additionally, the analysis addressed the methodological strengths and limitations of the DAP as a projective assessment tool, emphasizing its interpretative nature and the necessity of integrating DAP findings with other psychological assessments and clinical interviews to enhance validity.

Through this methodological framework, the study aims to provide a theoretically grounded and integrative understanding of the Draw-A-Person Test as a nonverbal psychological assessment instrument and to reaffirm its relevance within contemporary psychological research, particularly in exploring emotional conditions that are difficult to articulate through verbal expression.

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### 3. FINDINGS AND DISCUSSION

Author 1 examined the research conducted by Wijaya (2022) regarding the correlation between anxiety and the Draw A Person Test (DAP), which demonstrated a significant relationship between drawing results and changes in participants' emotional conditions before and after attending art group therapy interventions. DAP was utilized as a tool to assess the reduction of anxiety levels through observation of visual signs in the drawings, such as line pressure, strokes, and erasures. In the initial stage, participants' drawings exhibited characteristics typical of individuals with high anxiety, namely thickened lines, strong pressure on strokes, and repetitive erasures indicating emotional tension and feelings of insecurity. After the intervention, DAP results showed positive changes, where lines became smoother, erasures were minimized, and forms appeared lighter and more expressive. For instance, in participants P and F, sketch lines became softer, while in RE, RI, NP, and NS, line thickening notably decreased. Participant RE also showed a decrease in aggression symbols, such as the disappearance of sharp weapon imagery that previously appeared due to anxiety impulses. These results indicate that the Draw A Person Test functions not only as a diagnostic tool but also as a medium to monitor emotional dynamics and psychological development during the art therapy process. This, DAP can serve as a sensitive nonverbal evaluation tool for tracking changes in mood and affective stability.

Furthermore, Author 1 analyzed the study by Sukma Muclisin et al. (2023), where both research subjects (A and D) exhibited anxiety stemming from disharmonious family experiences, specifically parental divorce. This family condition caused feelings of sadness, fear, and loss of security, which were subsequently reflected in the Draw A Person Test results. In subject A, anxiety arose from feelings of failure and loss of life direction after her parents' divorce. In the DAP test, she drew a female figure sitting while holding a plant as a symbol depicting herself as a closed figure seeking peace and needing security. The drawing illustrated a lost need for affection and emotional protection, signaling anxiety about the future and emotional instability. After undergoing art therapy, subject A was able to channel emotions and thoughts through drawing activities, resulting in a gradual decrease in anxiety. This was evident in the DAP post-test results, which showed smoother lines, more proportional figures, and more open and free facial expressions. Meanwhile, subject D showed signs of anxiety in the form of broken and reconnected lines, indicating feelings of doubt, loss, and difficulty establishing relationships with others a characteristic of individuals experiencing psychological pressure. After the art therapy process, D was able to express past trauma and sadness through drawings, resulting in reduced anxiety levels, although not yet fully recovered. From this study, it can be concluded that DAP plays a crucial role in revealing anxiety projections stored in the subconscious, while art therapy serves as a therapeutic means to channel, process, and reorganize

negative emotions into constructive creative expressions. Both complement each other, where DAP serves as a tool to understand the individual's inner condition, and art therapy acts as a process of deep emotional recovery through visual art media.

Meanwhile, Author 2 examined the research by Indriyani & Soetikno (2023) in the journal Muara Ilmu Sosial, Humaniora, dan Seni, which investigated the effectiveness of art therapy as a group intervention in reducing anxiety levels among adolescents in the Tangerang Juvenile Detention Center (Lapas Anak). This study employed a quasi-experimental one-group pre-test post-test design with five participants aged 15–18 years who had high anxiety levels. Measurements were conducted using the Draw A Person Test (DAP) and the Depression Anxiety Stress Scale (DASS) before and after the intervention. The intervention was carried out in six sessions, covering free drawing activities, expressing negative emotions, and depicting self-hopes. The results showed a significant decrease in anxiety levels with a significance value of 0.043. Visually, DAP results showed clear changes: lines became smoother, figure sizes were larger, positions were more balanced, and facial expressions appeared calmer. For example, participant AJ, who initially drew a small figure with a crying expression, drew a larger, smiling figure after therapy, indicating increased self-confidence and reduced emotional tension. In addition to changes in drawings, participant behavior also improved; they became more open, actively participated, and were able to express feelings positively during sessions. These findings confirm that art therapy has a dual role: as a nonverbal assessment tool to evaluate emotional conditions and as a therapeutic medium that helps individuals channel emotions and build psychological balance through creative activities. This approach proved effective in helping adolescents in correctional environments overcome anxiety and develop a sense of security and more stable self-confidence.

Author 2 reviewed the subsequent research by Jerry et al. (2020) in the journal Application of Solution-Focused Brief Therapy with a Group Approach to Improve Adolescent Self-Concept at LPKA SLM, which examined the effectiveness of Solution-Focused Brief Therapy (SFBT) in improving the self-concept of adolescents in correctional institutions. This study used a one-group pre-test post- test design with five participants who had low self-concept based on Draw A Person Test (DAP) results. After attending five group therapy sessions, DAP results showed significant changes in participants' drawings: figure sizes became larger, positions shifted to the center of the paper, hand and leg shapes were more complete, and lines became firmer and steadier. These changes indicate an increase in self- confidence, self- control, and feelings of empowerment in the individuals. Additionally, during therapy sessions, adolescents showed progress in self-awareness, reflection ability, and the emergence of a positive outlook on the future. Based on these results, the application of SFBT proved effective in helping adolescents develop a more positive self-concept by focusing on solutions rather than problems. In this context, DAP functions as a psychological evaluation tool that not only depicts personality states but also visually,

emotionally, and symbolically displays internal changes in adolescents after intervention. Thus, the DAP test can be used as an indicator of psychotherapeutic intervention success through changes in the form and quality of drawings reflecting positive development within the individual.

The results of these four studies demonstrate a strong alignment with Karen Machover's classical view, which asserts that human drawings are a direct reflection of an individual's emotional dynamics, personality, and psychological condition, including aspects of anxiety, depression, and self-concept. Every visual element in the drawing such as line pressure, body proportions, figure size, and erasures represents inner conflicts, emotional tension, and psychological needs unrealized by the individual. Findings from these four studies strengthen the validity of Machover's projective approach in the context of modern psychology, affirming that the Draw A Person Test (DAP) functions not only as a personality assessment tool but also as an effective nonverbal medium for identifying affective changes and psychological dynamics during the therapy process. Through symbolic and visual analysis of drawing results, it can be understood how individuals adapt emotionally and process towards psychological recovery without having to rely on verbal expression. In the context of art therapy, art therapy and DAP act as complementary approaches; one opens space for free expression and emotional recovery, while the other provides deep understanding of a person's inner condition. Therefore, these four studies provide empirical evidence that Machover's projective theory remains relevant to this day, not only as a basis for interpretation in psychological assessment but also as a therapeutic approach integrating art, symbols, and emotional expression to understand and restore human mental balance more holistically.

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#### 4. CONCLUSION

The results of the four studies demonstrate a strong alignment with Karen Machover's perspective, which states that human drawings are a direct representation of an individual's emotional dynamics, personality, and psychological condition. Visual elements such as line pressure, figure size, body proportions, and erasures reflect the presence of inner conflict, emotional tension, and psychological needs unrealized by the individual. These findings reinforce the understanding that the Draw A Person Test (DAP) functions not only as a projective assessment tool to identify anxiety and personality characteristics but also plays a role as an effective nonverbal medium in the therapy process. Through visual changes in drawing results, such as smoother lines, more open postures, and calmer facial expressions, DAP is capable of reflecting emotional development and the individual's psychological recovery process. In the context of art therapy, DAP plays a crucial role as a means of creative expression that helps individuals channel emotions, understand themselves, and reorganize their psychological balance. Thus, DAP proves relevant to this day as a diagnostic and

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therapeutic approach integrating art, symbols, and emotional expression to understand and restore human mental balance holistically.

Based on these findings, several recommendations are proposed for future application. The administration of the Draw A Person Test (DAP) should be conducted by psychologists or professionals who understand projective theory and psychodynamic principles to ensure more accurate and ethical interpretations. To obtain more comprehensive results, DAP can be used alongside other measurement tools such as HTP (House-Tree-Person Test), TAT (Thematic Apperception Test), or standard anxiety scales, accompanied by clinical interviews. In intervention practice, DAP can be combined with art therapy, cognitive behavioral therapy, or solution-focused brief therapy so that the results are not only diagnostic but also therapeutic. Furthermore, in the context of psychological education and research, students and practitioners need to receive symbolic interpretation training and professional supervision to avoid misinterpretation. Finally, DAP can serve as a reflective and empathetic tool in understanding individuals with verbal limitations, such as children, adolescents in correctional institutions, or individuals with anxiety disorders who struggle to express themselves directly.

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