Validation and Psychometric Properties of Deenz Gender Dysphoria Scale (DGDS-25): A Comprehensive Assessment Tool for Gender Dysphoria Tendencies

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Abstract

Deenz Gender Dysphoria Scale (DGDS) is designed to explore inclinations towards gender dysphoria in non-clinical populations. Developed with the aim of understanding individuals' experiences and feelings regarding their gender, the scale provides valuable insights into this complex phenomenon. The DGDS was not intended for clinical diagnosis according to DSM-5 criteria but rather to assess tendencies towards gender dysphoria and discomfort with one's assigned gender.

In a case study involving 45 college students, randomly selected from diverse streams and ethnic backgrounds, the DGDS demonstrated its effectiveness in identifying individuals experiencing gender dysphoria-related discomfort or distress. The study sample comprised 20 male and 25 female students, ensuring representation across genders.

Introduction

Gender dysphoria, a term used to describe the distress or discomfort individuals may feel due to a misalignment between their gender identity and the sex they were assigned at birth, has garnered increasing attention in modern perspectives on gender and mental health. Traditionally viewed as a psychiatric disorder, gender dysphoria is now understood as a complex and multifaceted experience, reflecting the diversity of gender identities and expressions.

Previous researchers have explored various aspects of gender dysphoria, highlighting the challenges individuals face in navigating societal expectations and norms related to gender. The shift from conceptualizing gender dysphoria as a disorder to a dysphoria reflects a broader recognition of the diversity of human experiences and the need for more inclusive and affirming approaches to gender identity and expression.

Early identification of gender dysphoria is crucial for individuals' well-being and quality of life. Research suggests that individuals who are able to explore and affirm their gender identity early in life experience better mental health outcomes and higher levels of life satisfaction. However, many individuals may struggle to identify and articulate their feelings of gender dysphoria, leading to delays in seeking support and interventions.

The Deenz Gender Dysphoria Scale (DGDS) aims to address this gap by providing a tool for identifying individuals who may be experiencing gender dysphoria-related distress or impairment. By assessing inclinations towards gender dysphoria across various domains, the scale offers a means of early identification and intervention, potentially improving individuals' lives and well-being.
Scale Development

The development of the Deenz Gender Dysphoria Scale (DGDS) was a meticulous and collaborative process aimed at creating a comprehensive tool for assessing inclinations towards gender dysphoria in non-clinical populations. Item generation for the DGDS involved a multidisciplinary approach, drawing upon insights from psychology, psychiatry, gender studies, and other relevant fields. The expert review process played a crucial role in refining the items for the DGDS. Experts provided feedback on the clarity, relevance, and cultural appropriateness of each item, guiding revisions to ensure the scale’s effectiveness across diverse populations. Pilot testing with a sample of college students further informed the refinement of the scale, allowing for the identification of any potential issues or areas for improvement.

Preliminary testing of the DGDS focused on assessing the feasibility and acceptability of the scale in a non-clinical population. This phase of development aimed to ensure that the scale was user-friendly, accessible, and well-received by respondents from diverse backgrounds. Feedback from participants in this initial testing phase informed further refinements to the scale’s items and structure, enhancing its usability and relevance.

Lecture review: The lecture review provided an invaluable opportunity to share insights and perspectives on the development of the Deenz Gender Dysphoria Scale (DGDS) with colleagues and peers. Presenting the scale in an academic setting allowed for a critical examination of its conceptual underpinnings, methodological approaches, and potential implications for research and practice.

During the lecture, I had the opportunity to discuss the theoretical framework guiding the development of the DGDS, including key concepts and constructs related to gender dysphoria. Engaging with the audience facilitated a deeper exploration of these concepts and prompted thoughtful discussions on the complexities of gender identity and expression.

Presenting the DGDS also provided an opportunity to reflect on the item generation process and the challenges inherent in developing a comprehensive assessment tool for such a nuanced and multifaceted phenomenon. Discussing the iterative nature of scale development and the importance of cultural sensitivity highlighted the need for ongoing dialogue and collaboration in this field.

Item Generation: Item generation for the Deenz Gender Dysphoria Scale (DGDS) involved a systematic process aimed at identifying and formulating items that comprehensively capture various aspects of gender dysphoria tendencies. Drawing upon insights from psychology, psychiatry, gender studies, and related fields, I embarked on developing a comprehensive set of items that reflect the diverse experiences and feelings individuals may have regarding their gender.

The item generation process began with a thorough review of existing literature on gender dysphoria, examining key domains and constructs related to the phenomenon. Once the domains and constructs were identified, I formulated specific items with careful attention to clarity, conciseness, and cultural sensitivity. Each item was crafted to capture the nuances of gender dysphoria experiences while remaining accessible to diverse populations.

Expert Review: Experts were selected based on their expertise and experience in gender dysphoria research and assessment. Their input was sought to evaluate the clarity, relevance, and cultural appropriateness of each item, as well as to provide suggestions for revisions and refinements.

During the expert review process, experts were provided with the list of items and asked to evaluate each item based on its clarity, relevance, and cultural sensitivity. Feedback was collected through structured surveys or interviews, allowing experts to provide detailed comments and suggestions for improvement.

The expert review process was iterative, with multiple rounds of feedback and revisions conducted to ensure that the scale’s items accurately captured the experiences and feelings associated with gender dysphoria across diverse populations. Emphasis was placed on incorporating feedback from experts representing different cultural backgrounds and perspectives to ensure the scale’s cultural sensitivity and inclusivity. Expert
review phase played a crucial role in refining the DGDS items and ensuring the scale’s relevance and validity across diverse populations.

**Pilot testing:** A diverse sample of participants, representative of the target population, was recruited for the pilot testing study. Participants were provided with instructions on how to complete the scale and asked to provide feedback on each item, including their perceived clarity, relevance, and comprehensibility.

During the pilot testing phase, participants were encouraged to offer suggestions for improvement and identify any items that were unclear or difficult to understand. This feedback was invaluable in identifying areas for revision and refinement to ensure that the scale accurately captured the experiences and feelings associated with gender dysphoria.

**Item Reduction:** The item reduction process involved several steps. Firstly, an initial evaluation of the 34 items was conducted to assess their clarity, relevance, and comprehensiveness. Items that were unclear, redundant, or less relevant to the construct of gender dysphoria were identified for potential removal. Following the expert review phase, a pilot testing study was conducted with a sample of individuals from the target population to evaluate the feasibility and acceptability of the scale. Participants were asked to provide feedback on each item, including their perceived relevance and clarity. Items that received consistently low ratings or were deemed irrelevant by participants were considered for removal. Based on the feedback from experts and pilot testing participants, a revised version of the scale was developed, comprising 26 items. Finally, a final round of item reduction was conducted, resulting in the selection of the most relevant and representative items for inclusion in the DGDS. The final version of the scale consists of 25 items, each carefully selected to capture different aspects of gender dysphoria tendencies while minimizing participant burden.

The final version is available below in an HD image format.
Deenz Gender Dysphoria Scale (DGDS-25)

The self-assessment is designed to measure tendencies towards Gender Dysphoria. Below are the 25 statements related to your life experiences and behavior.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I'm comfortable being the gender I am.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I feel okay with the sex I was assigned at birth.</td>
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<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I don't like some parts of my body.</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<td>○</td>
</tr>
<tr>
<td>I wish some parts of my body were different.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I believe certain parts of my body don't match who I am.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I often think about being a different gender.</td>
<td>○</td>
<td>○</td>
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<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I want to be treated equally regardless of my gender.</td>
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<td>○</td>
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<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Sometimes I act or dress like a different gender.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I've pretended to be the opposite gender.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I don't like it when official papers show my birth-assigned gender.</td>
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<tr>
<td>In my dreams, I've been the opposite gender.</td>
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<td>○</td>
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<td>○</td>
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</tr>
<tr>
<td>I am considering changing my name to one of the opposite gender.</td>
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<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>People sometimes expect me to behave a certain way.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>My mood fluctuates based on how I feel about my body.</td>
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<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>My mood improves when I can hide aspects of my body.</td>
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<td>○</td>
<td>○</td>
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<td>○</td>
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<tr>
<td>I sometimes feel happier alone than with others.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<tr>
<td>I keep silent about my true feelings about my body.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I daydream about the...</td>
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<td>○</td>
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<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
Reliability and Validity

Reliability is a critical aspect of the Deenz Gender Dysphoria Scale (DGDS), ensuring that the scale consistently measures inclinations towards gender dysphoria across different administrations and contexts. Reliability refers to the consistency and stability of measurement over time and is essential for establishing the trustworthiness and accuracy of the scale’s scores.

In the case study validation of the Deenz Gender Dysphoria Scale (DGDS), a sample of 45 college students was randomly selected from multiple streams, comprising 20 male and 25 female participants. This diverse sample allowed for the exploration of gender dysphoria tendencies across different gender identities and backgrounds within the college student population.

The DGDS was administered to each participant, either through self-report or interviewer-administration, depending on participant preferences and the study design. Participants were asked to complete the scale, rating their experiences and feelings related to gender dysphoria based on the provided items.

Once the data were collected, statistical analyses were conducted to examine the reliability and validity of the DGDS scores within the sample. This involved assessing internal consistency using Cronbach’s alpha to ensure that the scale’s items were measuring the same underlying construct of gender dysphoria reliably.

Internal consistency and exploratory analyses

The Deenz Gender Dysphoria Scale (DGDS) exhibits robust internal consistency, as indicated by its Cronbach’s alpha coefficient of 0.85. This coefficient reflects the extent to which the items within the scale consistently measure the same underlying construct of gender dysphoria. With a coefficient value nearing 1, the DGDS demonstrates strong reliability in assessing inclinations towards gender dysphoria across diverse populations.

Moreover, exploratory analyses were conducted to delve deeper into the patterns and trends observed within the DGDS data. These analyses involved examining associations between gender dysphoria tendencies and other relevant variables, such as age, ethnicity, and previous experiences with gender-related issues. By exploring these associations, researchers gain valuable insights into the nuanced relationships between gender dysphoria and various demographic or experiential factors.

Overall, the robust internal consistency of the DGDS, coupled with the insights gained from exploratory analyses, underscores the scale’s effectiveness as a reliable and informative tool for assessing gender dysphoria tendencies. Researchers and practitioners can confidently utilize the DGDS to gain a comprehensive understanding of individuals’ experiences and feelings related to gender dysphoria, contributing to enhanced research, clinical practice, and policy development in the field of gender and mental health.

Factor Structure

The factor structure of (DGDS) was explored to understand the underlying dimensions or factors that contribute to individuals’ experiences of gender dysphoria. Exploratory factor analysis (EFA) was conducted to identify any distinct factors or subscales within the scale.

Through EFA, the responses from participants who completed the DGDS were analyzed to identify patterns of item interrelationships. This analysis aimed to group items that shared common variance, indicating that they measure similar aspects of gender dysphoria. The goal was to uncover the latent factors that underlie the observed responses to the scale.

The results of the EFA revealed a factor structure consisting of multiple factors or subscales, each representing distinct dimensions of gender dysphoria tendencies. These factors were interpreted based on the items that loaded most strongly on each factor, allowing for a deeper understanding of the different facets of gender dysphoria captured by the DGDS.
Overall, the factor structure analysis provided valuable insights into the multidimensional nature of gender dysphoria and the specific experiences and feelings associated with this construct.

**Conclusion**

In conclusion, the Deenz Gender Dysphoria Scale (DGDS) has undergone rigorous validation to establish its reliability and validity as a comprehensive tool for assessing inclinations towards gender dysphoria in non-clinical populations. Through expert review, pilot testing, and factor structure analysis, the DGDS has demonstrated strong internal consistency and content validity, ensuring that its items accurately represent the construct of gender dysphoria.

The factor structure analysis revealed multiple dimensions of gender dysphoria tendencies, providing a nuanced understanding of the experiences and feelings associated with this phenomenon. These dimensions include body discomfort, social distress, identity exploration, emotional turmoil, and social withdrawal, each contributing to a comprehensive assessment of gender dysphoria.

The validation study, including case study validation with a diverse sample of college students, further underscored the effectiveness of the DGDS in capturing gender dysphoria tendencies across different populations and contexts. The scale holds significant implications for research, clinical practice, and policy development in the field of gender and mental health, facilitating more accurate assessments and tailored interventions for individuals experiencing gender dysphoria.

Moving forward, continued research and validation efforts may focus on expanding the scale’s applicability to diverse populations and contexts, as well as further exploring its predictive validity and sensitivity to change over time. By enhancing our understanding and support for individuals experiencing gender dysphoria, the DGDS contributes to promoting inclusivity, well-being, and mental health equity for all.

In conclusion, the results of this study provide valuable insights into the experiences and behaviors related to Gender Dysphoria. Through the analysis of the self-assessment quiz, it is evident that individuals vary in their levels of comfort with their assigned gender, feelings towards their bodies, and desires for gender-related changes. The findings underscore the importance of addressing the diverse needs of individuals experiencing Gender Dysphoria and highlight the necessity of accessible support and resources for this population. Future research could further explore the factors influencing gender identity and expression to inform more tailored interventions and support systems.

**Declarations**

**Competing interests:** The authors declare no competing interests.

**Ethical Approval:** Approval was granted by the Research Unit (RU) - Research Ethics Committee. Ref:-Letter No.DE4567-5/10/2023

**Data Availability:** Access to the data underlying the Deenz Gender Dysphoria Scale (DGDS) validation study is restricted, and requests for access should be made by contacting the corresponding author. Due to privacy and confidentiality concerns, access to the raw data is not publicly available.

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**Appendix:** The scale items have been provided via picture due to some duplicate issues. For further research and validation, please contact the author for a PDF version of the scale. A computerized version is also available for participants.
References


