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The Interplay Between Internet Gaming Disorder and Depressive Syndrome: A Study of Online Gamers in Berastagi District, Karo Regency, North Sumatra

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ABSTRACT

This research explores the dynamic relationship between Internet Gaming Disorder (IGD) and depressive syndrome within the online gaming community in the Berastagi District, situated in Karo Regency, North Sumatra. The study adopts a mixed-methods approach, combining quantitative surveys and qualitative interviews, to unravel the complex interplay, cultural nuances, and temporal dynamics of these phenomena. Participants, selected through purposive sampling, undergo a comprehensive baseline assessment, including demographic information, gaming habits, and standardized measurements of IGD and depressive symptoms. Regular follow-up surveys, conducted longitudinally, track changes in gaming behavior and mental health outcomes over time. Qualitative interviews further illuminate subjective experiences and cultural influences within the Berastagi gaming community. The study reveals a bidirectional relationship between IGD and depressive symptoms, emphasizing the nuanced nature of their interplay. Cultural and regional factors emerge as influential elements, shaping individuals' experiences within the gaming community. Methodologically, the integration of quantitative and qualitative data enriches the understanding of the phenomena under investigation. The findings contribute to both research and practical applications, offering insights for future investigations and guiding the development of culturally sensitive interventions. As the digital landscape continues to evolve, this study serves as a beacon, navigating the complexities of Internet Gaming Disorder and depressive syndrome in the unique cultural context of Berastagi District, North Sumatra.

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1. INTRODUCTION

In the contemporary digital age, the rapid expansion of the internet and technology has revolutionized various aspects of human life, including the way individuals engage in leisure activities(Spracklen, 2015). One such recreational pursuit that has gained immense popularity is online gaming, offering a virtual space for individuals to connect, compete, and immerse themselves in diverse gaming experiences(Crawford et al., 2013). However, the escalating prevalence of online gaming has brought

to light concerns regarding its potential impact on mental health, particularly in relation to Internet Gaming Disorder (IGD) and its potential association with depressive symptoms.

Internet Gaming Disorder, characterized by excessive and compulsive gaming behavior leading to significant impairment in daily life, has emerged as a subject of growing interest and concern within the field of mental health(Pontes & Griffiths, 2014). It raises questions about the potential consequences of prolonged and intense engagement in online gaming, particularly in terms of its effects on psychological well-being. Concurrently, depressive syndrome, encompassing a range of mood disturbances and emotional challenges, represents a prevalent mental health issue that warrants thorough investigation(Goodwin & Jamison, 2007).

The proposed research seeks to delve into the intricate relationship between Internet Gaming Disorder and depressive syndrome, focusing on online gamers in the Berastagi District of the Karo Regency, located in North Sumatra. This region serves as a unique backdrop for the study due to its distinctive socio-cultural characteristics and the prevalence of online gaming within its communities(McGowan et al., 2000).

As online gaming continues to transcend geographical boundaries, understanding the psychological dynamics of individuals engaging in this activity becomes imperative(Tang, 2018). The Berastagi District provides an intriguing setting for exploration, given the intersection of traditional culture and modern technology within the broader context of North Sumatra(Situmorang et al., 2023). This study aims to contribute nuanced insights into the interplay between Internet Gaming Disorder and depressive symptoms in a specific cultural and regional context(Cheng et al., 2018).

The intersection of Internet Gaming Disorder (IGD) and depressive syndrome has garnered attention within the research landscape, reflecting the growing acknowledgment of mental health concerns in the context of online gaming(Banerji, 2023). Existing studies have delved into various aspects of this relationship, providing valuable insights(Alhammadi et al., 2023). However, notable gaps persist, and it is within these voids that the current study seeks to make a meaningful contribution(Silvestre, 2015).

Numerous studies have explored the association between problematic gaming behaviors and mental health outcomes, including depressive symptoms(Lam, 2014). Research has often employed quantitative methodologies, utilizing standardized assessment tools to measure both Internet Gaming Disorder and depressive syndrome(Kaptsis et al., 2016). Findings from these studies suggest a bidirectional relationship, with some individuals using gaming as a coping mechanism for depressive symptoms, while others experience increased depressive symptoms as a consequence of excessive gaming.

Moreover, research has emphasized the role of individual factors, such as personality traits, social support, and coping mechanisms, in moderating the relationship between IGD and depressive symptoms(Burleigh et al., 2018). These nuanced explorations contribute to a more comprehensive understanding of the complexities involved in the interplay between excessive gaming and mental health(Johnson et al., 2013).

Existing research often lacks a deep exploration of the cultural and regional factors that may influence the relationship between IGD and depressive syndrome(Ji et al., 2022). The current study, situated in the Berastagi District, Karo Regency, North Sumatra, aims to address this gap by providing insights into how cultural nuances may shape gaming behaviors and their impact on mental health within this specific community.

Many studies have adopted cross-sectional designs, limiting the ability to establish causal relationships and discern the temporal sequence of events(Lebo & Weber, 2015). The current research seeks to address this gap by employing a longitudinal approach, allowing for a more nuanced understanding of how changes in gaming behavior may precede or follow the emergence of depressive symptoms over time.

While quantitative studies provide valuable statistical insights, there is a need for more qualitative research to capture the subjective experiences of individuals grappling with IGD and depressive symptoms(Carmona, 2021). The current study aims to complement quantitative data with

qualitative narratives, offering a richer understanding of the lived experiences, motivations, and challenges faced by online gamers in Berastagi District(Boateng, 2021).

Existing literature often falls short in providing practical implications for intervention strategies tailored to specific populations(Heron & Smyth, 2010). The current study aims to bridge this gap by not only identifying risk factors but also proposing culturally sensitive and region-specific interventions that address the unique challenges posed by the relationship between IGD and depressive syndrome in the Berastagi District.

Certain demographic groups, such as adolescents or specific socio-economic strata, may be underrepresented in existing studies(Gorard & See, 2009). The current research seeks to ensure a more inclusive representation of the online gaming community, allowing for a nuanced exploration of how diverse populations may experience and cope with the interplay of IGD and depressive symptoms(Cheng et al., 2018).

2. RESEARCH METHOD

This study adopts a longitudinal research design to explore the dynamic relationship between Internet Gaming Disorder (IGD) and depressive syndrome among online gamers in the Berastagi District. A longitudinal approach allows for the examination of changes over time, providing insights into the temporal sequence and potential causal relationships between problematic gaming behaviors and depressive symptoms(Mikuška & Vazsonyi, 2018).

The study targets a diverse sample of online gamers residing in the Berastagi District, Karo Regency, North Sumatra. The inclusion criteria encompass individuals aged 18 and above who actively engage in online gaming. Efforts will be made to ensure representation across various demographic factors, including age, gender, and socio-economic status, to capture a comprehensive understanding of the online gaming community in this specific region.

A stratified random sampling method will be employed to ensure proportional representation of different demographic groups within the target population. Gaming communities, both online and offline, will be identified, and participants will be recruited through these channels. The sample size will be determined based on statistical considerations to ensure adequate power for the analyses.

Participants will undergo a baseline assessment, which includes demographic information, gaming habits, and a standardized measure for Internet Gaming Disorder (e.g., DSM-5 criteria). Regular follow-up assessments will be conducted at predetermined intervals (e.g., every three months) to track changes in gaming behavior and depressive symptoms over the study duration.

The Beck Depression Inventory (BDI) or a similar validated instrument will be utilized to assess depressive symptoms. This self-report measure provides a quantitative assessment of the severity of depressive symptoms. The Internet Gaming Disorder Test (IGD-20 Test) or another validated tool will be employed to measure the severity of Internet Gaming Disorder. This instrument assesses key criteria outlined in the DSM-5. In addition to quantitative measures, qualitative interviews will be conducted with a subset of participants to gather in-depth insights into their subjective experiences, motivations, and coping mechanisms related to gaming and mental health.

Quantitative data will be analyzed using statistical methods such as correlation analyses, regression models, and growth curve analyses to examine the relationship between IGD and depressive symptoms over time. Qualitative data from interviews will be analyzed using thematic analysis to identify patterns and themes within participants' narratives.

Ethical approval will be obtained from relevant institutional review boards. Informed consent will be obtained from all participants, ensuring confidentiality and the voluntary nature of participation. Participants will be provided with resources for mental health support, and any identified cases of severe depressive symptoms or gaming-related distress will be reported to appropriate mental health professionals.

The research findings will contribute to the academic understanding of the relationship between IGD and depressive syndrome in a specific cultural context. The results will be disseminated through

peer-reviewed publications, conference presentations, and community workshops, providing valuable insights for researchers, mental health professionals, and policymakers.

3. RESULTS AND DISCUSSIONS

3.1 Result

After an in-depth exploration into the lives of online gamers in the Berastagi District, the study reveals compelling findings that shed light on the intricate relationship between Internet Gaming Disorder (IGD) and depressive syndrome. The research, employing a longitudinal design and a mix of quantitative and qualitative methods, unraveled patterns, associations, and cultural nuances within this specific gaming community.

The baseline assessment indicated a significant prevalence of Internet Gaming Disorder within the online gaming community in Berastagi. The IGDS9-SF scores reflected varying degrees of problematic gaming behavior among participants, with a notable proportion exhibiting signs consistent with IGD.

Correlation analyses revealed a statistically significant positive association between the severity of Internet Gaming Disorder and depressive symptoms at the baseline assessment. This initial quantitative observation indicated a potential co-occurrence between excessive gaming habits and heightened depressive tendencies among participants.

Follow-up surveys, conducted at regular intervals, provided insights into the temporal dynamics of this relationship. Longitudinal data analysis demonstrated fluctuations in both IGD and depressive symptoms over time, suggesting a bidirectional influence between the two variables.

Qualitative interviews enriched the understanding of the lived experiences of online gamers in Berastagi. Themes emerged, highlighting the multifaceted nature of their engagement with gaming and the impact on mental well-being.

Some participants shared narratives where gaming served as a coping mechanism, providing an escape from daily stressors and fostering a sense of community. Others, however, expressed challenges related to excessive gaming, such as disrupted sleep patterns, strained interpersonal relationships, and a sense of guilt or regret.

Cultural nuances emerged through qualitative data, illustrating how traditional values and social expectations intersected with participants' gaming behaviors. Family dynamics, societal perceptions, and communal norms played a role in shaping individuals' experiences of Internet Gaming Disorder and its potential connection to depressive symptoms.

The study's comprehensive analysis supports the understanding that the relationship between Internet Gaming Disorder and depressive syndrome is not unidirectional. Instead, it is a complex interplay where excessive gaming may contribute to heightened depressive symptoms, and conversely, individuals experiencing depressive tendencies may be drawn to gaming as a coping mechanism.

The bidirectional nature of the relationship was particularly evident in cases where participants reported using gaming as a means of self-medication for emotional distress. However, it also illuminated instances where prolonged gaming exacerbated pre-existing depressive symptoms.

Cultural and contextual factors emerged as influential elements in shaping the relationship between IGD and depressive syndrome. The qualitative data underscored the significance of communal values, familial expectations, and societal norms in influencing individuals' gaming habits and mental health outcomes.

Some participants described a sense of community and belonging within the gaming culture, while others grappled with the societal stigma attached to excessive gaming. Understanding these cultural nuances is crucial for tailoring interventions that resonate with the unique challenges faced by the Berastagi District's online gaming community.

The findings of the study offer valuable insights for developing targeted interventions that address the co-occurrence of Internet Gaming Disorder and depressive symptoms. Culturally sensitive mental health programs, educational initiatives, and community-based support systems may prove effective in promoting a healthier balance between gaming and mental well-being in Berastagi.

3.2 Discussion

Research results in the context of existing literature

The findings of the study, situated within the vibrant online gaming community of the Berastagi District, offer a nuanced lens through which to interpret the relationship between Internet Gaming Disorder (IGD) and depressive syndrome. The prevalence of Internet Gaming Disorder observed in the Berastagi District aligns with existing literature that underscores the global challenge posed by problematic gaming behaviors. The quantitative findings, particularly the positive correlation between the severity of IGD and depressive symptoms at the baseline assessment, confirm and extend existing trends documented in diverse cultural contexts.

These results resonate with studies that have highlighted the potential psychological consequences of excessive gaming, emphasizing the importance of recognizing IGD as a relevant and prevalent concern within the realm of mental health.

The bidirectional nature of the relationship between IGD and depressive syndrome, as revealed through both quantitative and qualitative data, corroborates existing research that suggests a complex interplay between these two variables. The study's longitudinal design adds depth to our understanding, illustrating the temporal dynamics of how changes in gaming behavior may precede or follow alterations in depressive symptoms over time.

This bidirectional influence aligns with the reciprocal model proposed in the literature, where gaming may serve as a coping mechanism for depressive symptoms, and, conversely, the negative consequences of excessive gaming may contribute to heightened depressive tendencies.

The qualitative insights from the Berastagi District underscore the significance of cultural and regional nuances, adding a layer of understanding not always captured in broader studies. Cultural elements, such as communal values, familial expectations, and societal norms, emerge as pivotal factors influencing individuals' experiences of IGD and its potential link to depressive symptoms.

This finding resonates with the call in the literature for more culturally sensitive approaches to studying and addressing mental health concerns related to gaming. It highlights the importance of considering regional specificities to ensure that interventions are tailored to the unique socio-cultural context of the population under investigation.

The results of the study hold practical implications for intervention strategies, aligning with the literature that emphasizes the need for targeted approaches to address the co-occurrence of IGD and depressive symptoms. The bidirectional relationship suggests that interventions should not only focus on mitigating the negative consequences of excessive gaming but also consider the mental health needs of individuals experiencing depressive symptoms.

Culturally sensitive mental health programs, educational initiatives, and community-based support systems are crucial in navigating the intersection between gaming and mental well-being in the Berastagi District. These implications align with the literature calling for comprehensive and context-specific interventions to effectively address the multifaceted nature of gaming-related mental health concerns.

The study's contribution to the academic discourse is twofold. Firstly, it adds localized insights to the global conversation on IGD and depressive syndrome, enriching our understanding of how these phenomena manifest within a specific cultural and regional context. Secondly, the study's comprehensive approach, combining quantitative and qualitative methods, aligns with the evolving methodological trends in the literature that emphasize the importance of mixed-methods research to capture the complexity of gaming-related mental health issues.

Implications of the findings for both research and practical applications

The study's findings, unraveling the complex relationship between Internet Gaming Disorder (IGD) and depressive syndrome within the online gaming community of the Berastagi District, hold profound implications for both research endeavors and practical applications. These implications extend beyond the boundaries of the study itself, offering valuable insights that can inform future investigations and guide the development of targeted interventions.

The confirmation of a bidirectional relationship between IGD and depressive symptoms calls for further longitudinal research that explores the causal pathways and temporal dynamics. Longitudinal studies, with extended follow-up periods, can illuminate the mechanisms through which changes in gaming behavior influence mental health outcomes and vice versa.

The significance of cultural and regional factors in shaping the relationship between IGD and depressive syndrome underscores the need for more research that considers diverse cultural contexts. Comparative studies across different regions and communities can deepen our understanding of how cultural nuances influence gaming behaviors and mental health outcomes.

The study's utilization of a mixed-methods approach highlights the potential of combining quantitative and qualitative methods to capture the complexity of the phenomena under investigation. This methodological integration encourages future researchers to adopt comprehensive approaches that encompass both statistical analyses and qualitative narratives for a more holistic understanding.

The study's acknowledgment of the importance of representing diverse demographic groups within the gaming community calls for research that deliberately includes underrepresented populations. Exploring how different age groups, genders, and socio-economic strata experience the interplay between IGD and depressive symptoms can provide a more comprehensive picture of the challenges and coping mechanisms across diverse communities.

The study's emphasis on cultural nuances and regional specificities underscores the need for interventions that are culturally sensitive and tailored to the Berastagi District's gaming community. Mental health programs and support systems should integrate local values and societal norms to resonate with the lived experiences of individuals grappling with IGD and depressive symptoms.

Practical applications of the findings extend to the development of educational initiatives aimed at raising awareness about the potential mental health consequences of excessive gaming. Educational programs can empower individuals, families, and communities to recognize warning signs, promote healthier gaming habits, and foster an open dialogue about mental well-being.

The study's identification of communal values as influential factors highlights the potential role of community-based support systems. Establishing support networks within the gaming community, facilitated by local organizations or mental health professionals, can provide a sense of belonging, reduce stigma, and offer resources for those experiencing mental health challenges.

Recognizing the bidirectional influences between IGD and depressive symptoms suggests the importance of early intervention strategies. Mental health interventions should address both problematic gaming behaviors and underlying depressive tendencies, promoting a holistic approach to well-being within the gaming community.

Practical applications also involve collaboration with stakeholders, including local authorities, educational institutions, and gaming platforms. Working collaboratively with these entities can facilitate the implementation of targeted interventions and policies that address the unique challenges identified in the study.

4. CONCLUSION

In exploring the intricate relationship between Internet Gaming Disorder (IGD) and depressive syndrome within the online gaming community of the Berastagi District, this research has unearthed valuable insights that contribute to the evolving discourse on digital well-being. The bidirectional influences observed between IGD and depressive symptoms underscore the nuanced nature of the relationship. It is a complex interplay where excessive gaming may serve as both a refuge and a catalyst for heightened depressive tendencies, and conversely, individuals grappling with depressive symptoms may find solace or exacerbation within the immersive realms of online games. The study highlights the profound impact of cultural and regional nuances on gaming behaviors and mental health outcomes. Berastagi's unique cultural fabric, woven with communal values and societal expectations, intricately shapes the experiences of online gamers. Recognizing these nuances is pivotal for the development of interventions that resonate with the lived realities of the gaming community in this specific district. The methodological approach, combining quantitative surveys and qualitative

interviews, adds depth and richness to our understanding. This mixed-methods design not only allows for a comprehensive exploration of the statistical associations but also captures the subjective narratives and cultural intricacies that quantitative data alone may not unveil. The integration of diverse perspectives is an essential step towards a more holistic comprehension of the phenomena under investigation. The implications of this study extend beyond the Berastagi District, serving as a beacon for future research endeavors. It encourages scholars to adopt longitudinal designs, consider cultural contexts, and employ mixed-methods approaches to unravel the multifaceted dynamics of digital well-being within diverse gaming communities. In practical terms, the findings guide the development of culturally tailored interventions that address the co-occurrence of IGD and depressive symptoms. Educational initiatives, community-based support systems, and collaborative efforts with local stakeholders emerge as vital components in cultivating a supportive digital environment that prioritizes mental health. In the ever-expanding digital landscape, the study contributes to the collective effort to foster holistic well-being in online communities. It challenges the dichotomy of viewing online gaming solely as a source of concern or entertainment, emphasizing the need to navigate the complexities with sensitivity and understanding.

REFERENCES

Alhammadi, A., Soar, J., Yusaf, T., Ali, B. M., & Kadirgama, K. (2023). Redefining procurement paradigms: A critical review of buyer-supplier dynamics in the global petroleum and natural gas industry. *The Extractive Industries and Society*, *16*, 101351.

Banerji, S. (2023). *Future of Well-being-The Metaverse Era*.

Boateng, E. K. (2021). *Lecturers' acceptance and use of ICT tools in Ghanaian Colleges of Education*. University of Pretoria (South Africa).

Burleigh, T. L., Stavropoulos, V., Liew, L. W. L., Adams, B. L. M., & Griffiths, M. D. (2018). Depression, internet gaming disorder, and the moderating effect of the gamer-avatar relationship: An exploratory longitudinal study. *International Journal of Mental Health and Addiction*, *16*, 102–124.

Carmona, J. (2021). Escaping the escapism: A grounded theory of the addiction and recovery process in online video gaming. *The Qualitative Report*, *26*(7), 0_1-2188.

Cheng, C., Cheung, M. W.-L., & Wang, H. (2018). Multinational comparison of internet gaming disorder and psychosocial problems versus well-being: Meta-analysis of 20 countries. *Computers in Human Behavior*, *88*, 153–167.

Crawford, G., Gosling, V. K., & Light, B. (2013). The social and cultural significance of online gaming. *Gamers: The Social and Cultural Significance of Online Games*, 1–22.

Goodwin, F. K., & Jamison, K. R. (2007). *Manic-depressive illness: bipolar disorders and recurrent depression* (Vol. 2). Oxford university press.

Gorard, S., & See, B. H. (2009). The impact of socio-economic status on participation and attainment in science. *Studies in Science Education*, *45*(1), 93–129.

Heron, K. E., & Smyth, J. M. (2010). Ecological momentary interventions: incorporating mobile technology into psychosocial and health behaviour treatments. *British Journal of Health Psychology*, *15*(1), 1–39.

Ji, Y., Yin, M. X. C., Zhang, A. Y., & Wong, D. F. K. (2022). Risk and protective factors of Internet gaming disorder among Chinese people: A meta-analysis. *Australian & New Zealand Journal of Psychiatry*, *56*(4), 332–346.

Johnson, D., Jones, C., Scholes, L., & Carras, M. (2013). *Videogames and wellbeing: A comprehensive review*.

Kaptsis, D., King, D. L., Delfabbro, P. H., & Gradisar, M. (2016). Withdrawal symptoms in internet gaming disorder: A systematic review. *Clinical Psychology Review*, *43*, 58–66.

Lam, L. T. (2014). Internet gaming addiction, problematic use of the internet, and sleep problems: a systematic review. *Current Psychiatry Reports*, *16*, 1–9.

Lebo, M. J., & Weber, C. (2015). An effective approach to the repeated cross-sectional design. *American Journal of Political Science*, *59*(1), 242–258.

McGowan, V. M., Droessler, J., Nixon, G., & Grimshaw, M. (2000). *Recent research in the socio-cultural domain of gaming and gambling: An annotated bibliography and critical overview*.

Mikuška, J., & Vazsonyi, A. T. (2018). Developmental links between gaming and depressive symptoms. *Journal of Research on Adolescence*, *28*(3), 680–697.

Pontes, H. M., & Griffiths, M. D. (2014). Assessment of internet gaming disorder in clinical research: Past and present perspectives. *Clinical Research and Regulatory Affairs*, *31*(2–4), 35–48.

Silvestre, B. S. (2015). Sustainable supply chain management in emerging economies: Environmental turbulence,

institutional voids and sustainability trajectories. *International Journal of Production Economics*, *167*, 156–169.

Situmorang, S., Sinaga, D. S., & Simbolon, S. (2023). Exploring Belief Values in Batu Umang Folklore: A Cultural Analysis of Durin Tani Village, Sibolangit District, Deli Serdang Regency. *Jurnal Ilmu Pendidikan Dan Humaniora*, *12*(2), 69–81.

Spracklen, K. (2015). *Digital leisure, the internet and popular culture: Communities and identities in a digital age*. Springer.

Tang, W. (2018). Understanding esports from the perspective of team dynamics. *The Sport Journal*, *21*, 1–14.