

VALIDITY AND RELIABILITY OF A MENTAL HEALTH RECOVERY CHECKLIST
FOR YOUNG ADULTS

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Given the complex and multi-faceted nature of mental health recovery, The Dorm's Mental Health Recovery Checklist (MHRC) was developed to assess six key areas that are critical to overall well-being and recovery: *family/relationships, occupation/school, physical health, mental health, spirituality, and social support systems*. By addressing these domains, The Dorm's MHRC aims to provide a more holistic approach to mental health treatment and improve outcomes for clients. This study evaluates the reliability and construct validity of The Dorm's MHRC, with a specific focus on the role of spirituality in mental health recovery. The results of this study can provide valuable insights into the effectiveness of The Dorm's approach to mental health treatment and inform the development of a validated mental health checklist for use in treatment programs (Ee et. al, 2020; Honisett et. al, 2022; Rosen et. al, 2020).

The Six Domains of Mental Health Recovery

The six domains included in The Dorm's MHRC are supported by research as important factors for mental health recovery. Specifically, research indicates that social connection is strongly associated with mental health (Hogue et al., 2021; Son et al., 2020). Positive family experiences and supportive friendships have been found to promote positive mental health and prevent mental health issues (Gao et al., 2017; Hogue et al., 2021). In addition, engagement in social support systems can contribute to the development of important social skills, such as prosocial behavior (Son et al., 2020). These findings suggest that social support is essential for mental health recovery and reinforces the skills necessary to participate in social relationships.

Occupation and school are also important domains for mental health recovery, as having a steady occupation or academic pursuit can foster feelings of belongingness, importance, and

capability (Andersen et al., 2022). These factors contribute to a sense of purpose and meaning, which are important for mental well-being.

Physical health is another important indicator of wellness and mental health recovery. Being physically healthy can improve mood and prevent health issues that have a negative impact on mental well-being, such as type II diabetes, cardiovascular disease, cancer, and obesity (Carney et al., 2020; Ungar et al., 2020). Thus, physical health is critical for overall well-being and should be addressed in mental health treatment programs.

Finally, spirituality is included as a domain on the checklist, as it has been shown to be highly protective against heavy substance use and abuse as well as risky sexual behaviors (Miller & Gur, 2002; Miller et al., 2000). However, it is important to note that spirituality is a personal factor and may not be important to all clients in their recovery journey.

Assessing Reliability and Validity

While research on the validation of checklists pertaining to mental health symptoms (i.e., somatic, emotional) are present, published scientific literature on the validity and reliability of scales specific to recovery are limited (Garipey et al., 2016). The aim of the present study is to assess the reliability and construct validity of The Dorm's MHRC across six distinct domains: family/relationships, occupation/school, physical health, mental health, spirituality, and social support systems. The present study also sought to understand whether spirituality is a distinct part of mental health recovery.

Mental health checklists are essential tools for treatment programs, as they allow mental health professionals to assess their clients' progress and tailor interventions accordingly.

However, validated mental health checklists are scarce in the literature. The present study seeks to offer initial support for a mental health checklist that may improve the quality of care provided to individuals with mental health conditions.

Methods

Participants

The present study was conducted with the approval of the Institutional Review Board (IRB) at Ball State University, to ensure client protection throughout the research process. Archival data from a sample of 400 young adult clients who previously sought treatment at a mental health treatment program for young adults (see Location), ranging in age from 18 to 35, was analyzed.

Location

This present study was conducted at The Dorm, an intensive outpatient mental health treatment program for young adults with a range of mental health disorders and comorbidities, (i.e., eating disorders, substance use, depression, anxiety, psychosis). To provide comprehensive care, The Dorm offers a variety of complementary and alternative treatment approaches, such as exercise, yoga, reiki, community service, and meditation, in addition to traditional psychotherapy and clinical coaching.

Measure

The Dorm's MHRC is an assessment of mental health recovery across six domains (i.e., family/relationships, occupation/school, physical health, mental health, spirituality, social

support systems). Each item is rated on a 5-point Likert scale (1= poor, 5 = excellent) (see Table 1).

Data Analysis

Internal consistency reliability was assessed via Cronbach's alpha. To establish validity, an exploratory factor analysis was conducted.

Results

The total sample size for the present study was 400 individuals. The overall mean on The Dorm's MHRC was 3.07 ($SD=1.02$).

Reliability

To assess internal consistency reliability of the MHRC, Cronbach's alpha coefficient was calculated. The Cronbach's alpha coefficient was .86. (95% CI [.84, .88]). The high value of Cronbach's alpha suggests that the items on the MHRC are measuring a single underlying construct or dimension. Mean and standard deviation of each item is listed in Table 2. The item-total correlations for each item on the scale are presented in Table 3. Mental Health had the highest correlation with the total score ($r = .77$), whereas Spirituality had the lowest correlation ($r = .54$). These results suggest that mental health is the most strongly associated domain with the underlying construct being measured by MHRC whereas spirituality may not fit into the construct as strongly.

Validity

Kaiser-Meyer-Olkin (KMO) statistic was obtained to assess whether the current data were suitable for factor analysis. A KMO value of 0.89 was indicated, which suggests that there is a high degree of correlation among the variables and that they are likely to share common factors. Additionally, Bartlett's Test of Sphericity was significant ($p < .001$), further indicating that the variables are likely to share some common factor(s).

To determine the number of factors to extract, we examined a scree plot of the eigenvalues (see Table 4). The scree plot showed a steep drop in eigenvalues for the first couple factors, followed by a gradual leveling off. We used the 'elbow criterion' to determine the number of factors to extract, which suggested a unidimensional factor solution, meaning the items in the scale are measuring a single underlying construct (i.e., mental health recovery).

A unidimensional factor solution was extracted from the 6-item MHRC using principal axis factoring with varimax rotation. The exploratory factor analysis revealed that the one factor model accounts for 60% of the variance in the data. The factor matrix (Table 5) shows that all items loaded strongly on the single factor, with loadings ranging from .58 to .85. In addition, a two-factor solution was assessed, however this resulted in cross-loadings and reduced values across factor loadings, further supporting the unidimensional model.

Discussion

Overall, results show a high level of reliability for the MHRC with a Cronbach's alpha of .86. This suggests that the checklist may be a useful tool for assessing mental health recovery in clinical and research settings.

Regarding validity, all items load together on one factor which suggests a unified construct. However, it is important to note that spirituality had the lowest factor loading of all.

While a two-factor solution was considered and spirituality did not load by itself in that instance, it is still important to consider why spirituality may not fit within the construct as well as other domains. A potential explanation of this result is that spirituality may be less central, or less relevant to all clients, when it comes to mental health recovery as compared to the other constructs measured by the checklist. From a clinical perspective, spirituality can be disposable in cases where individuals do not have a personal connection or relationship with a Higher Power but are still exceeding in their recovery process (Kent et al., 2020). Additionally, clients who attend alcoholics anonymous (AA), being the 12-step program is highly spiritual, may be more likely to foster a sense of spirituality than those who are in other types of programming (Verghese, 2008).

Being able to define and understand spirituality is important to consider, as spiritual practice can be intertwined with religion in many cases (though is not limited to religion) (Kent et al., 2020). Understanding of the similarities and differences between the two is important to obtain the most accurate results. Religion can be a part of spirituality, but spirituality can exist without religion; not understanding this conceptual difference can influence error in the responses yielded.

Limitations

While this study contributes to our understanding of the validity and reliability of a measurement tool used for assessing mental health recovery, it is now understood that the analysis was based on a unidimensional factor structure. Therefore, the findings may not capture the full complexity of mental health recovery. Future research should explore whether a

multidimensional factor structure might provide additional insights into the different aspects of mental health recovery and further validate the tool.

Additionally, the sample used in this study was limited to a specific population of young adults from high socioeconomic backgrounds living in major cities (New York and Washington, D.C.), which may limit the generalizability of the findings to other groups of individuals. Finally, this study utilized self-report measures, which are subject to potential response biases and may not fully capture the nuances of mental health recovery. Further research utilizing alternative methods of assessment may be necessary to further establish the validity and reliability of the MHRC.

Appendix A

Table 1. *The Dorm's Mental Health Recovery Checklist (MHRC)*

Instructions: Please rate the following statements based on how true they are to you. Please review the scale below before responding.

1 = Poor, 2 = Fair, 3 = Good, 4 = Very good, 5 = Excellent

1. Family / Relationships:
2. Occupation / School:
3. Physical Health:
4. Mental Health:
5. Spirituality:
6. Social Support Systems:

Table 2. *Item Statistics*

Item	Mean	Standard Deviation
Family/Relationships	3.28	1.27
Occupation/School	2.98	1.55
Physical Health	3.39	1.13
Mental Health	2.94	1.23
Spirituality	2.62	1.41
Social Support Systems	3.22	1.27

Table 3. *Item-Total Statistics*

Item	Item-Total Correlation	Cronbach's Alpha if Item Deleted
Family/Relationships	.69	.83
Occupation/School	.69	.84
Physical Health	.62	.85
Mental Health	.77	.82
Spirituality	.54	.86
Social Support Systems	.66	.84

Table 4. *Scree Plot*



Table 4. *Unidimensional Factor Matrix*

Family/Relationships	.76
Occupation/School	.75
Physical Health	.67
Mental Health	.85
Spirituality	.58
Social Support Systems	.72

References

Andersen, M. F., Svendsen P.A., Nielsen K., Brinkmann S., Rugulies R., & Madsen I. E. H.

(2022). Influence at work is a key factor for mental health - but what do contemporary employees in knowledge and relational work mean by "influence at work"? *International Journal of Qualitative Studies on Health and Well-being*, 17(1). doi: 10.1080/17482631.2022.2054513.

Carney, R., Imran, S., Law, H., Firth, J., & Parker, S. (2020). Physical health interventions on adolescent mental health inpatient units: A systematic review and call to action. *Early Intervention in Psychiatry*, 439-448. doi: 10.1111/eip.12981.

Ee, C., Lake, J., Firth, J., Hargraves, F., Manincor, M., Meade, T., Marx, W., & Sarris, J. (2020). An integrative collaborative care model for people with mental illness and physical comorbidities. *International Journal of Mental Health Systems*, 14 (83). doi: 10.1186/s13033-020-00410-6.

Gao, S., Assink, M., Cipriani, A., & Lin, K. (2017). Associations between rejection sensitivity and mental health outcomes: A meta-analytic review. *Clinical Psychology Review*, 57, 59-74. doi: 10.1016/j.cpr.2017.08.007.

Garipey, G., McKinnon, B., Sentenac, M., & Elgar, F. J. (2016). Validity and reliability of a brief symptom checklist to measure psychological health in school-aged children. *Child Indicators Research*, 9, 471–484. doi: 10.1007/s12187-015-9326-2.

Hogue, A., Becker, S. J., Wenzel, K., Henderson, Craig, E., Bobek, M., Levy, S., & Fishman, M.

- (2021). Family involvement in treatment and recovery for substance use disorders among transition-age youth: Research bedrocks and opportunities. *Journal of Substance Abuse Treatment*. doi: 10.1016/j.jsat.2021.108402.
- Honisett S., Loftus H., Hall T., Sahle B., Hiscock H., & Goldfeld S. (2022). Do Integrated hub models of care improve mental health outcomes for children experiencing adversity? A systematic review. *International Journal of Integrated Care*. doi: 10.5334/ijic.6425.
- Kent, B.V., Stroope, S., Kanaya, A.M., Zhang, Y., Kandula, N. R., Shields, A. E. (2020). Private religion/spirituality, self-rated health, and mental health among US South Asians. *Quality of Life Research*, 29, 495–504. doi: 10.1007/s11136-019-02321-7.
- Miller, L., Davies, M., & S. Greenwald. (2000). Religiosity and substance use and abuse among adolescents in the National Comorbidity Survey. *Journal of the American Academy of Child and Adolescent Psychiatry*, 39(9), 1190-1197. doi: 10.1097/00004583-200009000-00020.
- Miller, L. & Gur, M. (2002). Religiousness and sexual responsibility in adolescent girls. *Journal of Adolescent Health*, 31(5), 401-406. doi: 10.1016/S1054-139X(02)00403-2.
- Rosen, A., Gill, N. S., & Salvador-Carulla, L. (2020). The future of community psychiatry and community mental health services. *Current Opinion in Psychiatry*, 33(4), 375-390. doi: 10.1097/YCO.0000000000000620.

Son, D. & Padilla-Walker, L. M. (2020) Happy helpers: A multidimensional and mixed-method approach to prosocial behavior and its effects on friendship quality, mental health, and well-being during adolescence. *Journal of Happiness Studies*, 21, 1705-1723 doi: 10.1007/s10902-019-00154-2.

Ungar, M., & Theron, L. (2020). Resilience and mental health: How multisystemic processes contribute to positive outcomes. *The Lancet*, 7(5), 441-448. doi: 10.1016/S2215-0366(19)30434-1.