
Using the MMPI-2 College Maladjustment Scale in a Canadian University Setting

Donald W. Stewart

University of Manitoba

Abstract

This study reports on the initial results of a validation study of the College Maladjustment (Mt) scale from the recently revised Minnesota Multiphasic Personality Inventory. In a Canadian university setting, the Mt scale was completed by three groups of students (personal counselling; vocational counselling; scholarship recipients) intended to reflect a range of psychological functioning. It was predicted that students presenting for personal counselling would obtain higher scores than students presenting with vocational concerns or earning a scholarship. The results indicated that students in the personal counselling condition scored significantly higher than students in the other conditions. Implications for the validity of the scale and its use in a counselling service are discussed.

Résumé

Cette étude porte sur les résultats initiaux d'une étude de validation de l'échelle du College Maladjustment (Mt) de Minnesota Multiphasic Personality Inventory, récemment révisé. L'échelle Mt a été complétée par trois groupes d'étudiants fréquentant une université canadienne (counseling individuel; orientation professionnelle; récipiendaires d'une bourse d'études) tentant de refléter un éventail du fonctionnement psychologique. Il avait été prédit que les étudiants qui se présentaient, pour du counseling individuel, obtiendraient des résultats plus élevés que les étudiants se présentant avec des problèmes de choix de carrières ou ceux ayant reçu une bourse d'études. Les résultats ont indiqué que les étudiants venant pour du counseling individuel obtenaient des résultats significativement plus élevés que les autres étudiants. Les implications pour la validité de cette échelle et son usage en counseling sont discutées.

The Minnesota Multiphasic Personality Inventory (MMPI) (Hathaway & McKinley, 1940) is one of the most widely used personality assessment instruments in North America (Lubin, Larsen, Matarazzo & Seever, 1985). A huge literature on the basic clinical scales and their correlates has developed, but comparatively little research has focused on some of the more specialized supplementary scales derived from the MMPI. One of these scales that may be of particular interest to counsellors and other clinicians working with a university or college student population is the College Maladjustment scale (Mt) (Kleinmuntz, 1960; 1961).

The Mt scale was developed to identify emotionally maladjusted post-secondary students who may require longer-term or more intensive counselling or psychotherapy (Graham, 1990; Kleinmuntz, 1960; 1961). The basic rationale guiding the development of the scale is that university counselling staff may have difficulty quickly assessing whether a student's acute distress is a temporary, developmentally-appropriate reaction to life transitions or a reflection of longstanding psychological or personality disorders (Graham, 1990). The existence of a brief, focused

assessment device to identify the level of psychological adjustment or maladjustment of students presenting for service may be of considerable utility in identifying and planning for their service needs.

The need to develop ways of quickly and accurately identifying which students will require longer-term or more intensive counselling has increased along with the level of distress evident on postsecondary campuses. General student surveys often reveal unexpectedly high levels (>20%) of psychological difficulties and diagnosable psychopathology among the student body, including various anxiety (Koverola, Proulx, Hanna, Battle & Chohan, 1992), depressive (Proulx, Dyck, Quinonez, Chohan & Koverola, 1991), and substance abuse disorders (Svanum & Ehrmann, 1993). Under such conditions, it is incumbent upon counselling staff to be prepared to deal with an increased likelihood of serious psychological problems among their clients. A central consideration in this process is the ability to accurately and reliably screen students for level of maladjustment to ensure their needs are fully identified and dealt with in an appropriate and responsible manner (Gilbert, 1992).

The original Mt scale was shown to discriminate well between maladjusted and adjusted students in a series of criterion validity studies (Kleinmuntz, 1960; 1961). According to Kleinmuntz (1960), high scorers on the Mt scale tend to be ineffectual, pessimistic, procrastinatory, anxious, and worried individuals who are prone to somaticize and find life to be a strain much of the time. These students typically have elevated clinical profiles on the MMPI and evidence more severe psychopathology as indicated by therapist ratings (Wilderman, 1984). They may also have significant psychological problems that require ongoing treatment (Bosmajian & Mattson, 1980; Butcher, 1990). Low Mt scorers, on the other hand, are generally better adjusted and tend to be optimistic, conscientious, free of emotional discomfort (Graham, 1990), and psychologically hardier (Funk & Houston, 1987).

With the recent revision of the MMPI (Butcher, Dahlstrom, Graham, Tellegen & Kaemmer, 1989), slight modifications to Mt scale content were made and extensive new reliability data became available. No new concurrent validity data were reported, however. Collection of such data is important because there have been significant changes in the composition of most postsecondary populations over the past 30 years, including increased levels of serious psychological problems in students requesting counselling services (Gilbert, 1992). This means that the discriminative ability of the scale may have changed over time and revalidation with a contemporary sample is necessary to confirm its appropriateness for today's student clients.

The purpose of this study was to examine the concurrent validity of the MMPI-2 Mt scale (presented separately from the entire instrument) in a Canadian university setting by examining the pattern of scores obtained

from three student samples presumably reflecting different levels of psychological functioning or adjustment. Students who presented to a counselling service for personal counselling were compared with students who presented with vocational concerns and scholarship recipients who did not request individual counselling. It was predicted that the personal counselling students would obtain higher Mt scores than students from the other groups. Observation of this pattern would help confirm the validity of the revised Mt scale for use in counselling settings today.

METHOD

Participants

All participants were students at the University of Manitoba. The entire project was reviewed and approved by a departmental ethical review committee to ensure that participants' rights were protected, including their right to refuse participation without affecting their eligibility for service. Participants were also given the opportunity to learn about the overall results of the study upon its completion. The mean age of the personal counselling sample ($n=27$) was 22 years (range=18-35; $SD=3.4$). The mean age for the vocational counselling sample ($n=39$) was 21 years (range=17-40; $SD=4.8$). The mean age for the scholarship recipient sample ($n=27$) was 18 years (range=16-19; $SD=0.62$). Equal numbers of males and females were in the personal counselling and scholarship recipient samples. There were approximately three times as many females as males in the vocational counselling sample.

Procedure

The personal counselling sample was comprised of individuals who had been seen for at least five post-intake sessions and showed indications of being longer-term clients by virtue of their lack of progress to date or difficulty being understood by their counsellors. For most of these subjects the Mt scale was completed as part of a battery of psychological tests recommended by their counsellors to clarify their level and pattern of psychological functioning to aid in service planning. The vocational counselling sample was comprised of individuals attending career orientation sessions, which are regularly scheduled group presentations designed to inform students about the vocational counselling options available through the counselling service. These students completed the Mt scale along with their evaluation of the orientation session. The scholarship recipient sample was comprised of first-year undergraduates who were awarded a university entrance scholarship. They completed the Mt scale along with several other personality measures as part of their

participation in a scholarship students program designed to help reduce the attrition rate in this population.

Instrument

The MMPI-2 Mt scale consists of 41 true or false statements. Several of the items are reverse-keyed to control for response set bias. Scores can range from 0 to 41. The mean scores for males and females in the normative sample are 11.3 ($SD=6.44$) and 12.31 ($SD=6.99$), respectively. The Cronbach's alpha coefficient of internal consistency is $>.80$ in the normative sample and the test-retest correlation is $>.90$ (Butcher et al., 1989).

RESULTS

A two-way (sample source \times gender) analysis of variance (ANOVA) was conducted on Mt scores across the different samples. (See Table 1 and Table 2.) Gender was included in the analysis to determine whether it affected the Mt results across the different student samples employed. Age was not included as a factor in the analyses because there was no significant correlation between participants' ages and their Mt scores.

TABLE 1

Means and Standard Deviations of Mt Scale Scores across Student Samples

<i>Group</i>	<i>Mt</i>	<i>SD</i>	<i>n</i>	<i>Range</i>
Personal Counselling	25.54	7.73	28	7-35
Vocational Counselling	19.07	8.20	43	2-35
Scholarship Students	13.96	4.92	27	7-23

TABLE 2

ANOVA Summary Table for Mt Scores

<i>Source</i>	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>
Sample	2	1382.70	691.35	14.27*
Gender	1	82.34	82.34	1.70
Sample \times Gender	2	150.24	75.14	1.55
Error	81	3923.94	48.44	

* $p < .0001$

The results indicated that there was a main effect for student sample source, $F(2, 81) = 14.27$, $p < .0001$. There was no main effect for gender

and no source \times gender interaction effect. Tukey's post hoc analyses indicated that the personal counselling sample was significantly higher in mean Mt score than either of the other two samples. The vocational counselling sample was also significantly higher in mean score than the scholarship recipients. There were no significant differences in mean score by gender (males=18.8; females=19.7) either within or across samples.

DISCUSSION

The obtained pattern of MMPI-2 Mt scores was consistent with the prediction that personal counselling students would obtain higher scores than students from the other groups. This finding replicates the results of earlier studies of student maladjustment using the MMPI Mt scale (Bosmajian & Mattson, 1980; Kleinmuntz, 1960; 1961). As such, it supports the view that the MMPI-2 Mt scale possesses sufficient concurrent validity to justify its contemporary use in postsecondary counselling services.

An unpredicted but interesting additional finding was that the vocational counselling students earned significantly higher Mt scores than the scholarship recipients. One reason for this may be that career indecision is part of a larger complex of developmental issues that elevates Mt scores to a higher than average but subclinical level. Another possibility is that some students attended the vocational counselling sessions as an initial exploration of the counselling process and hoped eventually to undertake counselling for personal or emotional issues as well. In either case, the apparent sensitivity of the Mt scale to such factors serve to further underscore its potential utility in counselling settings.

The brevity and ease of administration of the Mt scale is another of its attractive features. Because it can be scored in less than one minute, it can become part of the registration materials that students complete during their initial presentation for service. This would allow counsellors to have a useful source of clinical information about a student prior to the initial interview. A brief scan of the items endorsed could also guide the counsellor in identifying issues to pursue that may not be part of routine intake questioning (e.g., "I noticed from this questionnaire that you said you brood a great deal. Could you tell me about that?").

Another feature of the Mt scale that will appeal to the growing number of counsellors interested in diagnostic formulation (Hohenshil, 1992; Ritchie, Piazza & Lewton, 1991) is its ability to identify students who are likely to have formally diagnosable psychopathology. Svanum and Ehrmann (1993) used the Mt scale as a measure of psychopathology in university students and found that it was as good an indicator of anxiety and depressive disorders as the best linear composite of basic MMPI scales. This suggests that the Mt scale may hold value as a diagnostic screening tool for those counsellors who adopt such an approach or are

interested in exploring the growing trend toward actuarial rather than clinical prediction (cf. Kleinmuntz, 1990). The possibility of basing decisions about type and level of client service needs on more objective criteria—such as Mt cutoff scores—seems particularly worthy of consideration in our current climate of dwindling resources and increased demands for accountability by administrators, professional accreditation bodies, and the public.

The level at which Mt cutoff scores should be set is not yet completely clear, however. Kleinmuntz (1961) and Graham (1990) caution that separate norms and cutoff scores should be developed for each setting in which the Mt scale is used, but the present results indicate that the ostensibly most well-adjusted sample (i.e., the scholarship recipients) scored at approximately the same level as the MMPI-2 normative sample respondents (Butcher et al., 1989). This suggests that results may be more widely generalizable across settings than previously reported. Further support for this position is provided by Svanum and Ehrmann (1993), whose mean Mt scores for adjusted ($Mt=13.2$; $SD=6.9$) and maladjusted ($Mt=22.4$; $SD=8.4$) college students at a midwestern U.S. university were within a few points of the corresponding values obtained in this study. Taken together, these results suggest that a cutoff score in the low 20s may be a reasonable basis for treatment or referral decisions. Replication at additional sites is necessary to confirm this possibility.

Further research with the Mt scale is also necessary to assess its construct validity. The present results indicate that the scale can be a useful tool to assist counsellors in identifying a student's level of psychological maladjustment and presumed service needs, but a more complete understanding of the nature of student maladjustment requires much additional research (cf. Kleinmuntz, 1963). Large-sample studies allowing for factor analyses of the Mt scale are necessary to see if there are multiple components of maladjustment or if it is a unitary phenomenon. An informal review of the Mt items suggests that there may be anxious, depressive, and somaticizing subtypes or components of maladjustment. Studies using other instruments measuring these and related phenomena would help show whether the Mt scale is measuring something unique and, if so, clarify what that is and how it relates to other measures of psychological adjustment and psychopathology.

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About the Author

Donald W. Stewart, Ph.D., is an Assistant Professor and the Assistant Director of Training at the University of Manitoba Counselling Service. In addition to his interest in student mental health issues, he is actively involved in clinical supervision and training and research on adult learning disabilities.

Address correspondence to: Dr. D. Stewart, Counselling Service, 474 University Centre, University of Manitoba, Winnipeg, MB, R3T 2N2.

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