A Brief Marital Satisfaction Screening Tool for Use in Primary Care Medicine

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BACKGROUND: In the last 3 decades, research has shown consistent association with marriage and mortality and morbidity benefits. Despite the known emotional and physiological benefits of marriage, and the high rate of marriage failure, there are no well-defined screening tools to identify at-risk marriages in primary care settings.

METHODS: Patients presenting to a family medicine clinic were asked to complete a one-item screening question about the level of satisfaction with their marriage. Participants were also asked to fill out the Dyadic Adjustment Scale (DAS), a validated 32-item marital adjustment scale.

RESULTS: A total of 159 of 208 (76%) respondents completed the survey. The average DAS score was 111 (SD=21.5), similar to the national average of 114 (SD=17.8). Using the DAS as the gold standard for marital satisfaction, we assessed the level of agreement between the one item screener and the longer DAS. A Pearson’s Correlation Coefficient showed a correlation of 0.67. ROC curve showed sensitivity 86% and specificity 86% for the one item screener. Area under the curve was 0.89 (95% CI=0.83-0.93). In addition, analysis of variance showed that predictors of marital satisfaction included more dinners shared a week (compared 0–2, 3-6, 7 nights a week) and dates a month (0, 1–3, >3). Paired t test showed perceived health and living with spouse to be significant.

CONCLUSIONS: The one-item screening question was shown to have good correlation to the gold standard, as well as acceptable sensitivity and specificity for identifying current dissatisfaction with marriage in a primary care setting. Further research is needed to determine if screening in a primary care setting, correlated with early intervention, can help improve satisfaction and avoid divorce.

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Social support is increasingly shown to be beneficial for health and wellness. One area that appears to be particularly beneficial is the marriage relationship. In the last 3 decades, research has shown a consistent association between marriage and substantial mortality and morbidity benefits. For example, mortality rates among unmarried women are 50% higher than for married women and 250% higher for unmarried versus married men.1 Longitudinal studies in Alameda County, CA, Rosetta, PA, and other countries have confirmed the health benefits associated with marriage relationships.2,3 Married persons have a lower incidence of cancer. When cancer is diagnosed, it’s at a lower stage, and married patients live longer after diagnosis and treatment of their cancers.4,5 Marriage has been shown to decrease the incidence of myocardial infarction and decreases 5-year mortality after an initial heart attack.6-12 Men who felt their wives loved them had a three-fold decrease in ulcer incidence.13 Additionally, there is a decreased incidence of stroke, acute infectious diseases, parasitic diseases, respiratory illnesses, and severe injuries.14-19

In addition to the differences seen in mortality and morbidity, patients who experience a divorce are noted to have higher rates of clinical depression, with divorced patients 5–21 times more likely to seek psychiatric help after divorce, and men are 2.7 times more likely to commit suicide.20-27

Children of parents who divorce also bear a significant burden, with reviews consistently showing lower levels of success in school, more behavioral and emotional problems, lower self-esteem, and more experience difficulties with interpersonal relationships. Even in homes where divorce doesn’t occur but there is extreme negative (physical, emotional
studies to determine if screening and screening tool for use in primary care. A validated research protocols but are too time been incorporated into primary care marriage counseling literature had reveal any screening tools designed they approach divorce. A precipitous drop in satisfaction as married and those who divorce have described and show that, 5 years satisfaction curves have been well for discord may have benefit. Life rated families having widowed, divorced, or sepa an additional 20% of households ventive strategies geared to assist couples in achieving pre-crisis equi or higher levels of function can “(1) identify couples in crisis and (2) providers are able to provide preventive strategies geared to assist couples in achieving pre-crisis equilibrium or higher levels of functioning.” Evaluation of relationship stability among married or cohabiting couples is, however, an area that lacks any focused tools for screening or intervention in the primary care arena. With the health benefits associated with stable marriage and many of our patients choosing to marry (50% of households in the United States are currently married, with an additional 20% of households having widowed, divorced, or separated families) effective screening for discord may have benefit. Life satisfaction curves have been well described and show that, 5 years prior to a divorce, couples who stay married and those who divorce have very similar life satisfaction. However, those who eventually divorce see a precipitous drop in satisfaction as they approach divorce. Review of the primary care literature failed to reveal any screening tools designed for the primary care settings. Several screening tools borrowed from the marriage counseling literature had been incorporated into primary care research protocols but are too time consuming to be used effectively in an office-based setting. A validated screening tool for use in primary care is needed to facilitate further studies to determine if screening and early intervention could be helpful in stabilizing marriage relationships.

The purpose of this study is to define a brief marital satisfaction screening tool for use in primary care.

Methods
Patients were recruited in a sequential manner from those presenting to a military family medicine residency clinic. Inclusion criteria were English speaking, age ≥18, and married. Each patient was invited at check-in to complete a survey that collected basic demographics, health screeners, military-specific questions, and a one-item screening question about the level of satisfaction with their marriage. The one-item screener was “On a scale of 1 to 10 rate your overall satisfaction with your marriage, with 1 being very unsatisfied and 10 being extremely satisfied.” In addition, all participants were asked to complete a Dyadic Adjustment Scale (DAS) questionnaire.

The DAS is a 32-question, well-validated tool used to measure marital satisfaction that has been used in many previous studies to identify marital dissatisfaction. The 32 questions generated a score of 0–150 points. A total score of <100 has been used previously as a cut-off for dissatisfaction. Prior to the start of the study, IRB approval was obtained (protocol number FDG20070036E). All surveys contained a cover page expressing the volunteer nature of the survey and the purpose of the study.

Results
Of 208 offered surveys, 159 (76%) were completed. Six patients refused to fill out the survey (most common reason was that they felt the topic was personal). Forty-three surveys were filled out incompletely or incorrectly. Examples of incomplete surveys would include those that completed basic demographic data but failed to complete in the DAS scale. Demographic data of respondents is listed in Table 1.

The average DAS score was 111 ± 21.5, which is very similar to the national average of 114 ± 17.8. Using the DAS for our standardized marital satisfaction score, we assessed the level of agreement between the brief marriage satisfaction screener and the longer DAS using a Pearson correlation coefficient (0.67 with P < 0.001). Additionally, an ROC curve analysis was performed to determine sensitivity and specificity of each cutoff (Table 2). The area under the curve was 0.89 (95% CI=0.83–0.93). A cut-off of ≥8 for those satisfied and ≤7 for those who were unsatisfied was felt best able to maximize sensitivity and specificity. Patients who were classified this way had a sensitivity and specificity of 86%. Different cutoffs could be used to increase either sensitivity or specificity.

With the marriage satisfaction data from the VAS scale, a comparison was also made to demographic, deployment, health, and life style data. For single variables, a t test was used to determine significance. For multiple variable comparisons, an analysis of variance was used. Items that were not found to be significant compared to DAS marriage satisfaction included if the patient or their spouse had deployed, the number of times they had been married, the number of children a couple had, rank (reflective of socioeconomic status), a history of depression, alcohol, or tobacco use, or a history of parents getting a divorce. Items that were significant included living with spouse (P < 0.001), perceived health (P = 0.012), and dual income homes (P = 0.026). Additionally, the number of nights a week that a dinner was shared with their spouse (P < 0.001) and the number of nights a couple went on per month (P < 0.001) were significant (Figure 1 and 2).

Discussion
Screening plays a large role in the benefits provided from patients. The development of a validated screening tool is necessary to facilitate further studies to determine if
primary care screening can successfully stabilize marriages.

The one question screener, “On a scale of 1 to 10, rate your overall satisfaction with your marriage with 1 being very unsatisfied and 10 being extremely satisfied,” was found to have a good degree of correlation to the DAS. It had an acceptable sensitivity and specificity for a screening tool. It is brief and has the potential to be used in clinic prescreening or in office settings. While <3% of patients refused the research survey due to the personal nature, the majority of patients were willing to address the question. The informal feedback received from providers, who saw the patients following the completion of the survey, was that patients were glad they were being asked about their relationships and felt it was an important part of who they were.

With a tool defined, the question of implementation and use is raised. Some research directions may include (1) if the screener can be effectively incorporated with screening questionnaires currently in use, (2) the development of evidence-based interventions for use in primary care, and (3) if screening and interventions can be incorporated into an already busy practice.

Recently, multiple question preventative care screeners have been implemented into primary care practices. For example, one study (n=755) examined a screening questionnaire

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<th>Table 1: Patient Demographics</th>
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<td>Age</td>
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<td>Sex</td>
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<td>Number of marriages</td>
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<td>Parents divorced</td>
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<td>Perceived parents marriage as good</td>
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<td>Number of children</td>
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<td>Years education</td>
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<td>Currently living with spouse</td>
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<td>Enlisted/officer household</td>
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<td>Dual income household</td>
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<td>Had spouse deploy in last year</td>
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<td>Deployed in the last 12 months</td>
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<td>Health</td>
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<td>Diagnosis of depression</td>
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<td>Dinner with spouse</td>
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<td>Number of dates a month</td>
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<td>Dyadic Adjustment Scale</td>
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* 1. middle school, 2. high school, 3. 4-year degree, 4. professional degree

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<th>Table 2: Sensitivity and Specificity of One Question Screener</th>
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administered prior to the office visit that used one-question screeners for depression, nicotine dependence, anxiety, problematic drinking, and abuse. For each condition, patients indicated if they desired help with the problem. The study had high sensitivity (64%–98%) and specificity (73%–97%) for identification of the problems as well as great acceptance of patients.37 In the questionnaire 4/10 questions dealt with relationship issues (around abuse). The possibility of adding a marriage question to a similar pre-office screener may help patients self-identify as struggling in their relationship and allow for interventions to help stabilize such relationships sooner. Additionally, implementing this type of questionnaire could be easily done in an EMR format. (The author is not aware of any EMRs that screen relationship stability.)

The question as to what interventions to implement needs to be addressed. Literature reviews of the medical literature have failed to produce any tools focused on primary care. However, literature reviews of the social science database helps provide many areas that could be good starting points. Traditional approaches involving active listening have resulted in low satisfaction among patients.38 New approaches that have improved effectiveness include a focus on improved communication, focusing on what’s right (as opposed to fixing what’s wrong), which gives in couples the foundation they need to manage their own conflicts. It’s interesting to note that 70% of a couple’s problems today will be the same problems couples have in 5 years.39

One particularly successful approach has been pioneered by Dr. John Gottman. He defined five times and traits (partings, reunions, admiration and appreciation, affection, and a weekly date) that revolved around key moments of time spent with each other during the week.39 (Of note, in our study it was shown that couples that had >4 dates a month were much more satisfied.) When taught to struggling couples and implemented, it resulted in improved relationship satisfaction scores. A small case series (n=5) has shown this method to be easy to teach to couples, and improved satisfaction scores were seen by two follow-up visits.60 This may be a reasonable tool to evaluate for use in primary care.

The question of time commitment in busy practice is a difficult one. Very little research has been done to demonstrate feasibility of marriage counseling in practice, and many practitioners are afraid to open that can of worms; however, the case series above may give some insight into feasibility.

Couples that were located with the screening question were asked if there were willing to work on their relationship. If they said yes, they were given a copy of the five traits and committed to start using them. Three to five minutes was spent explaining the traits, and a follow-up appointment was made for 2 weeks. At that time it was assessed if couples had been implementing the traits and if they weren’t, they were recommitted. A second follow-up appointment was made in 2 weeks. By the second visit, all five couples had expressed improvement in their relationships. By 6 months, all five couples expressed that they were happy or very happy with their relationship.
(Two couples were pregnant with desired pregnancies.) It was felt by the examiner that the tool was easy to use, was well received by patients, and was not overly burdensome to clinic pace. This was, however, a very small case series and would require a larger patient volume, with multiple examiners, and a control group to validate the effectiveness of the tool.

Conclusions

The one-question screening tool has a good correlation to the DAS scale. It demonstrated acceptable sensitivity and specificity. In addition, it is brief to administer and easy to interpret. Future research directed toward implementation and development of evidence-based interventions will help define if marriage satisfaction screening would be beneficial to patients in the primary care setting.


References

40. Bailey J. Diet, exercise and marriage? Presented at the 2007 Uniformed Services Academy of Family Physicians Scientific Assembly, Portland, OR.