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SCREENING FOR FAMILY DYSFUNCTION

To the Editor:

The paper of Dr. Mengel[1] concerning the use of the Family APGAR[2] in screening for family dysfunction in a family practice center provides some very important and useful information concerning this instrument. Dr. Mengel suggested that this instrument should be assessed in the light of his data and the criteria for screening given by Dr. Paul Frame.[3] This letter presents an analysis of the applicability of the Family APGAR as a screening tool for family dysfunction according to Dr. Frame's six criteria.

Criterion 1: The condition must have a significant effect on the quality and quantity of life. There is little question that dysfunctional families have a decreased quality of life. The relationship between family dysfunction as measured by Family APGAR and "psychosomatic illness" has been well documented. Thus criterion 1 is met.

Criterion 2: Acceptable methods of treatment must be available. It is apparent from Mengel's paper that the physicians being studied did not believe that acceptable treatment was available to their patients. Since acceptable treatment is a requirement for a valid screening test, the unavailability of treatment invalidates the Family APGAR as a screening tool. The use of this screening tool must be limited to situations where treatment may be offered when indicated. Thus criterion 2 is met in some situations but not in others.

Criterion 3: The condition must have an asymptomatic period during which detection and treatment significantly reduce morbidity or mortality. The concept of asymptomatic family dysfunction was not defined in the paper. Family dysfunction was noted by the physicians in 56 percent of families with APGAR s of less than 6 (Mengel's Figure 3), indicating that family dysfunction is frequently symptomatic when detected. Assuming that asymptomatic family dysfunction exists, no available studies demonstrate that treatment in the asymptomatic phase decreases the morbidity or mortality of either family dysfunction or of psychosomatic complaints. Thus the Family APGAR fails criterion 3.

Criterion 4: Treatment in the asymptomatic phase must yield a therapeutic result superior to that obtained by delaying treatment until symptoms appear. Therapeutic results to treatment in an asymptomatic phase have not been demonstrated; therefore, the Family APGAR fails criterion 4.

Criterion 5: Tests that are acceptable to patients must be available at reasonable cost to detect the condition in the asymptomatic period. The test is inexpensive and generally acceptable to patients. Dr. Mengel, however, reports a significant number of false-negative results but did not give the rate. Knowledge of that rate would be very helpful. Assuming a reasonable number of false-negative and false-positive findings, the Family APGAR fulfills criterion 5.

Criterion 6: The incidence of the condition must be sufficient to justify the cost of screening. The cost of screening is minimal. The incidence of family dysfunction is estimated to be 15 to 25 percent.[1] Criterion 6 is easily met.

Screening for family dysfunction fulfills criteria 1 and 6. It fulfills criteria 2 and 5 on a conditional basis,

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while criteria 3 and 4 are not fulfilled. A valid screening test must fulfill all six criteria, and thus screening for asymptomatic family dysfunction using the Family APGAR or any other screening test is not justified.

According to this analysis, the physicians in Dr. Mengel's study acted appropriately. Eighty-seven percent of patients with psychosomatic symptoms and low Family APGAR scores were assessed for family dysfunction (Mengel's Figure 5). The presence of low Family APGAR in the absence of symptoms, however, did not change the physicians' behavior.

This is not to say that symptomatic family dysfunction should not be investigated and treated when found. The diagnosis and treatment of symptomatic illness in a patient or a family is not a screening procedure and thus need not meet the criteria for screening. The Family APGAR may be used to assess the severity of family dysfunction in a symptomatic family and to follow the family's response to treatment.

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2. Smilkstein G: The Family APGAR: A proposal for a family function test and its use by physicians. J Fam Pract 1978; 6:1231–1239
3. Frame PS: A critical review of adult health maintenance: Part 4: Prevention of metabolic, behavioral, and miscellaneous conditions. J Fam Pract 1986; 23:29–39

The preceding letter was referred to Dr. Mengel, who responds as follows:

Dr. Urberg's letter provides an excellent critique of the use of the Family APGAR in screening for family dysfunction using Dr. Paul Frame's screening criteria. I agree with Dr. Urberg's main conclusion that the Family APGAR does not fulfill all six of Frame's criteria and thus cannot be advocated as a screening tool for family dysfunction. There are several points of disagreement and one point of clarification, however, that I would like to discuss.

First, Dr. Urberg mentioned that it would not be justified to screen for family dysfunction using an instrument other than the Family APGAR. The basis for this statement seems to be Dr. Urberg's belief that no screening instrument will ever meet criteria 3 and 4 because there is not a true asymptomatic period for family dysfunction. I disagree, primarily because criteria 3 and 4 apply to asymptomatic periods of diseases, not behavior or social dysfunctions such as family dysfunction. Just as depression is defined by its symptoms and does not have an asymptomatic phase, so, too, family dysfunction is defined by behaviors within the family that impede the growth of its members. Thus, criteria 3 and 4 need to be modified to speak of early family dysfunction when patterns of behavior have not become rigidified, or family dysfunction in which members have not developed medical symptoms or exacerbations of existing medical conditions. With criteria 3 and 4 so altered, it is conceivable in the future that a screening instrument may detect family dysfunction in its early stages, significantly reduce morbidity and mortality, and yield a therapeutic effect superior to that obtained by delaying treatment until dynamics are more established and resistant to therapy.

Second, I believe that acceptable treatment is available for family dysfunction in more instances than Dr. Urberg's statement, "criteria 2 is met in some situations but not in others," leads readers to believe. Campbell's recent review entitled the "Family's Impact on Health: A Critical Review"[1] supports the belief that treating family dysfunction leads to an improvement in a large number of acute, chronic, and mental illnesses that present commonly in the family practice setting. In addition, treatment of family dysfunction in the absence of an ill member is also sup-

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ported by a large number of outcome studies reviewed in Gurman and Kniskern's *Handbook of Family Therapy*.[2] Thus, I feel that criteria 2 is met in the great majority of situations and is largely fulfilled.

Third, Dr. Urberg correctly identified that I failed to report a false-negative rate for Family APGAR screening. The reason is that I did not evaluate all patients with a "gold standard" test for family dysfunction, such as an evaluation by a family therapist. The criteria for estimating the false-negative rate in my study was agreement between nurses and physicians in our clinics that family dysfunction existed in patients even though the APGAR score was above 6. We regard this estimate as low because there were a large number of cases in which either the nurses or the physician felt that family dysfunction was present in a particular patient's family, but both together could not agree. Thus, our estimate of the false-negative rate is conservative. As reported in our study, there were 44 patient visits in which patients scored above 6 on the Family APGAR, but both nurses and physicians felt family dysfunction was present. There were no instances when both nurses and physicians felt family dysfunction was absent and the APGAR score was 6 or less. Thus, an estimate of the false-negative rate would be 44 divided by 238 (194 + 44) or 18.5 percent. I feel that this rate is unacceptably high, and thus I agree with Dr. Urberg that the Family APGAR does not fulfill criteria 5.

Fourth, Dr. Urberg concludes that although we should not screen for asymptomatic family dysfunction, perhaps it would be appropriate to screen patients or their families with symptomatic illness, as that process would not need to meet the stringent screening criteria. Although I definitely feel an adequate evaluation of family function should take place on all patients who have symptoms suggestive of family dysfunction, I do not feel that our lack of criteria for this process justifies the Family APGAR's use in this situation. First, criteria similar to screening criteria can be established for this tertiary prevention activity. Second, the Family APGAR should be evaluated for its ability to detect family dysfunction at a reasonable cost, encourage physicians to institute treatment, reduce morbidity and mortality, and improve patient quality of life when screening symptomatic patients or their families. I feel it would be unwise to advocate use of the Family APGAR as a screening tool for assessing the presence of family dysfunction in symptomatic patients and their families in the absence of studies that prove it of benefit in this setting.

Finally, it is a gross understatement to say that this area is ripe for research. While no instrument currently meets the criteria established for screening, it is conceivable that such an instrument could be developed and would prove beneficial. Given recent empirical work and theoretical advances in the field of family functioning, it seems an appropriate time to move past the simplicity of the Family APGAR and develop new tools that have a better potential to meet Frame's screening criteria. Development and testing of more theoretically based instruments has the potential of not only moving the field of family systems medicine forward but also the possibility of improving our patients' health.

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2. Gurman AS, Kniskern DP: Family Therapy Outcome Research: Knowns and Unknowns. In Gurman AS, Kniskern DP (eds): Handbook in Family Therapy. New York, Brunner/Mazel, 1981, pp 742–775