Measuring Well-Being as Students Transition Between Schools: The Validation of the Quality of Transition Instrument

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Abstract: *Students who transition between school settings may manifest academic and social-emotional challenges that can be ameliorated through the efforts of educators and school counselors. To assess needs and outcomes, however, counselors require data from valid and reliable measures. This article presents the Quality of Transition Instrument (QTI), a brief, self-report measure of well-being for students experiencing school-to-school transition. The QTI was developed according to guidance on scale construction, literature-based research on risk factors related to school transition, and consultation with school counseling subject matter experts. Exploratory and confirmatory factor analyses were conducted using responses from 656 high school students who had recently transitioned into a new school. The analyses yielded subscales reflecting two factors: academic well-being and social-emotional well-being. The results indicate adequate content and construct validity as well as internal consistency reliability. Implications for school counseling research and practice are discussed. The measure is included as an Appendix.*

Students in modern K-12 school systems often transition from one setting to another. School-to-school transitions are a normal aspect of students' educational experiences but they can be challenging, whether they occur at developmentally appropriate times such as moving from elementary to secondary school or when the student's family relocates (Benner, 2011; Benner, Boyle, & Bakhtiari, 2017; Bradshaw, Sudhinaraset, Mmari, & Blum, 2010; Vasquez-Salgado & Chavira, 2013). The period surrounding a transition can have significant consequences in multiple domains; when grappling with the change in school environment, students must establish new friendships, find their way around the school, fit in with new social expectations, adjust to coursework and homework expectations, and form good relationships with teachers (Lane, Oakes, Carter, & Messenger, 2014; Schoffner & Williamson, 2015; Wiles, Bondi, & Wiles, 2006). If not navigated successfully, such transitions can put students at risk for lower academic achievement and social-emotional wellness (Akos & Galassi, 2004; Bradshaw et al., 2010; South, Haynie, & Bose 2007; Schiller, 1999).

Findings from the literature suggest that greater or lesser success following a transition can affect a student's chances of completing high school (Alspaugh, 1998; Balfanz, 2009; DeLamar & Brown, 2016; Estell et al., 2007; Mac Iver & Messel, 2013; Norford & Medway, 2001; U.S. General Accounting Office, 2002). Positive school transitions may even reduce the likelihood that a student will experience long-term psychological distress, including depression and feelings of isolation (Chung, Elias, & Schneider, 1998; Ellerbrock, Abbas, & DiCicco, 2014). For high school students in particular, it seems that successful transitions between schools are predictive of on-time graduation and access to postsecondary training opportunities (Mac Iver & Messel, 2013).

The stresses associated with moving between schools can be reduced if the environment is responsive and supportive of a developmentally appropriate transition, defined as a transition in which students' needs are met and their concerns are alleviated (Ellerbrock, Denmon, Owens, & Lindstrom, 2015; Schumacher, 1998). School counselors are in an excellent position to assess and potentially moderate transition-related difficulties (ASCA, 2004; Akos, Shoffner, & Ellis, 2007; Blair, Marchant, & Medway, 1984; Mac Iver, Epstein, Sheldon, & Fonseca, 2015; Rush & Akos, 2007). This is often the case for high school students, for whom family engagement in school life tends to decline (Mac Iver et al., 2015). Specifically, within the role of the school counselor as defined by The American School Counselor Association National Model (ASCA, 2004), counselors have a mandate for supporting vulnerable and underrepresented groups, including those at risk of academic and social-emotional challenges due to mobility. The skilled actions of school counselors have the potential to improve the quality of students' well-being during the school-to-school transition period through peer-to-peer programs, whole class instruction, small group intervention, or individual counseling (Akos & Galasi, 2004).

In order to identify which students may be at risk of difficulties, and to allocate limited resources appropriately, counselors need reliable and valid tools. In this article, we describe the development and validation of a measure of student well-being in the context of school-to-school transition. Our aim was to develop a tool that counselors can use to inform their decision-making when working with students who are experiencing school-to-school transition. First, we provide a brief overview of prior research in this area.

Domains of impact pertaining to school-to-school transition

Studies conducted in anticipation and in the aftermath of a school-to-school transition have revealed student concerns in academic and social-emotional domains that are related to the structural features of schools (Akos, 2004; Akos & Galassi, 2004). For example, moving from elementary to middle school or from middle to high school usually involves a transition to a larger, more impersonal environment. Such transitions are often associated with lower perceptions of school connectedness and support, increased attention to

peer relationships, and greater anxiety regarding grades (Mizelle, 2005). Results from longitudinal studies have corroborated the critical importance of examining students' academic or cognitive and social-emotional well-being. Following the transition from elementary to secondary school, grades often decline (Benner & Graham, 2009) and unchecked academic difficulty places students at risk of school failure and dropout (Alspaugh, 1998).

Similarly, in the social-emotional domain, school-to-school transitions can disrupt or exacerbate maladaptive achievement motivation (Eccles, Midgley, & Adler, 1984) and academic self-efficacy (Eccles et al., 1993). Although protective factors such as mastery learning-oriented beliefs have been identified, school-to-school transition for some students can also heighten preexisting psychological distress and depressive symptomatology (Chung et al., 1998; Kingery, Erdley, & Marshall, 2011). If unchecked, students' concerns may hamper academic achievement, lead to delinquent behaviors, or become serious mental health problems that jeopardize high school outcomes and postsecondary academic success (Bond et al., 2007; Fier & Brzezinski, 2010).

In addition to studying developmental transitions between levels of schooling, the educational research community has also begun to focus on the effects of high mobility on students' academic and social needs (Cole, 2012; DePedro et al., 2011; Popp, Grant, & Strong, 2011; Wood, Halfon, Scarlata, Newacheck, & Nessim, 1993). This research has shown that school-to-school transition support is even more critical for students who are highly mobile within and between school districts due to homelessness or other personal circumstances. Highly mobile students may face a fragmented curricular experience, resulting in frustration caused by gaps or repetitive content in the curriculum and differences in instructional approaches from one educational setting to the next (Alspaugh, 1998; Astor, Jacobsen, Benbenishty, Pineda, & Atuel, 2012; Department for Education of England, 2013; Titus, 2007).

Highly mobile students are also more likely to experience social disruption. They may perceive that they are on the periphery of social networks and report having fewer friends than other students do (Bradshaw et al., 2010; South et al., 2007). Though evidence on the impact of school-to-school transition on students' social-emotional well-being is still emerging (Rumberger & Mathis, 2015), researchers have found positive, and even protective, effects of specific school programming when educators and school counselors are trained to assess and respond to students' academic and social-emotional needs (Astor & Benbenishty, 2014; Garner, Arnold, & Nunnery, 2014).

One highly mobile population that has been studied over the past decade is military-dependent students, who move on average six to nine times during their K-12 education (Smith, Fien, & Payne, 2008; U.S. Government Accountability Office, 2010). For this population and other populations that may present with unique challenges, such as students with preexisting psychiatric needs, the actions of school counselors can provide significant improvements to the overall quality of the students' transition-related experiences (Garner et al., 2014; Cole, 2012; Fier & Brzezinski, 2010; Ruff & Keim, 2014). However, more research is needed to determine the particular needs of different groups of highly mobile students and then to map the domains of students' needs to areas of school responsiveness (Ellerbrock et al., 2015).

Measuring the quality of school-to-school transition

A critical issue for those seeking to conduct research on school-to-school transition is access to measures of students' well-being during and after transitions occur. Although a large number of studies have sought to identify facilitating factors and barriers to success (for reviews, see Benner, 2011, or van Rens, Haelermans, Groot, & van den Brink, 2017), few have used students' perceptions to facilitate an understanding of transitioning experiences. Consequently, at present there is a lack of suitable tools with practical utility for assessing the quality of school-to-school transition.

For example, in their seminal study on developmental transitions, Akos and Galassi (2004) developed a checklist to capture rising middle and high school students' concerns about specific aspects of moving to a new school. They included one open-ended item asking students to comment on the "difficulty" of their move, which students may have interpreted in a variety of ways. Although easy to administer, this checklist approach does not allow the assessment of changes over time (Kline, 2005). Therefore, it is of limited use for counselors who are providing interventions and managing programs. Others have relied more heavily on a qualitative approach. In an evaluation study on the effectiveness of a school-based support program, Ellerbrock et al. (2015) gathered multiple forms of data and incorporated students' perceptions of their transition through open-ended prompts. This approach provided insight into students' ideas about what makes for a low or high quality transition, but does not permit a professional counselor to quickly document and interpret changes that may occur as the student moves into the posttransition period. Quantitative, scale-based approaches have also been used to investigate a wide variety of factors relating to the quality of transition, such as feelings towards school, school concerns, transition supports, and school connectedness. For example, Uvaas and McKevitt (2013) identified the salience of these factors for the overall well-being of their sample group of high school students. However, their measurement of these facets of transition required participants to complete 48 Likert-style scale items, as well as several open-ended prompts. This approach may be feasible for research purposes but is of limited utility in an everyday school setting where time and response burden constraints exist.

Domains of school-to-school transition quality and associated constructions of the notion of well-being have also depended on researchers' areas of focus. In regards to transition quality, whereas some have investigated academic factors, others have tended to focus on social-emotional aspects. For example, Akos et al. (2007) focused

on academics by examining patterns of mathematics placement following the transition to middle school, and DeLamar and Brown (2016) analyzed parents' perceptions of their students' academic outcomes during the transition to high school. Conversely, Rudasill, Niehaus, Crockett, and Rakes (2014) focused on changes in school connectedness and affiliation with deviant peers during the year following the transition to middle school. Goodwin, Mrug, Borch, and Cillessen (2012) followed students through junior high and high school grade levels and examined consistencies and changes in depressive symptomatology, but did not investigate academic factors pertaining to transition.

However, a study by Duchesne, Ratelle, & Feng (2017) underscored the need to consider the potential relations between multiple aspects of school-to-school transition. They found that students' perceptions of the degree to which their psychological and emotional needs were met were linked to cognitive and affective outcomes reflecting academic and social-emotional well-being during the transition period between elementary and secondary school. This type of research is also perhaps most relevant to school counselors, who examine social-emotional indices in the context of an academic learning environment. In addition, we argue that for practical purposes, counselors will benefit from a measure that attends to both academic and social-emotional well-being that can be interpreted by a professional who has detailed contextual knowledge of how students' concerns may interact with the posttransition setting. Such a measure could be used to help establish a useful working definition of school-to-school transition quality and could be used to further investigate cognitive and social-emotional aspects of student well-being.

The present study

Key to empowering school counselors to design and enact effective programs is the provision of access to brief, high quality assessment tools that can be used to screen students upon transition and measure responsiveness to intervention (Kahn, 2006; Studer, Oberman, & Womack, 2006). However, despite the emphasis on evidence-based practice within the field of school counselor education and research, there are few validated measures that practitioners or researchers can use to assess the quality of transition from the student's perspective and few measures that can simultaneously assess students' transition-related academic and social-emotional well-being. Recognizing the need to close the gap between studies that investigate transition-related constructs and variables and the data-informed design, delivery, and assessment efforts that accompany local, school-based programming (Hinkin, Tracey, & Enz, 1997; Mvududu & Sink, 2013), we developed the Quality of Transition Instrument (QTI). The QTI is a brief, self-report questionnaire designed for use by school counselors in upper elementary and secondary education settings. Our goal was to develop a measure that can be completed by a student in a short amount of time with guidance from a counselor. The utility of such a measure is that it can serve as a baseline and an index of transition quality in both academic and social-emotional domains and be appropriate for use in either developmentally appropriate or non-traditional circumstances for a student's school-to-school transition.

The purpose of this study was to investigate the psychometric properties of the QTI to establish its validity and reliability for use in measuring student well-being for students who have recently transitioned between school settings. We addressed the following research questions:

1) What evidence supports the validation of the QTI?
2) What evidence supports the reliability of the QTI?

Method

In alignment with guidance in scale construction (Hinkin et al., 1997; Kline, 2005) and counseling instrument development (Mvududu & Sink, 2013), our approach involved several steps. The first stage entailed the actual development of the measure, with subsequent stages involving administration of the measure and examination of the psychometric properties of the measure. These stages are discussed in detail below.

Phase I. Survey Development

To identify constructs and potential items for the instrument, we conducted a review of the literature on risk factors associated with mobility and domains of well-being associated with the transition to a new school environment (e.g., Akos & Galassi, 2004; Moore, 2013; Popp et al., 2011; Rumberger & Mathis, 2015). Next, we drew from a district-wide needs assessment study (Garner et al., 2014) in which educators, school counselors, and school leaders were surveyed and interviewed to identify the primary domains in which their highly mobile students were perceived to require support.

In consultation with two counselor education faculty at our institution, we then focused our efforts on the domains of practice most relevant to the work of school counselors—academic and social-emotional well-being—as opposed to issues pertaining to staffing and professional development. This three-pronged approach led us to construct a working definition of psychological well-being: the relative presence or absence of distress pertaining to routinized academic, social, and procedural aspects of school life.

We included procedural concerns within the list of academic well-being items and included items related to emotional state within the list of social-emotional well-being items. The resulting pool of 24 Likert-type 5-point agreement scale items was reviewed by counseling and educational research faculty subject matter experts in order to establish content and face validity. Named the Quality of Transition Instrument (QTI; see Appendix A), the questionnaire was then used by staff in several school districts as part of initiatives in which school counselors focused on identifying and meeting the needs of students experiencing school-to-school transition. These initiatives

provided institutional support for counselors to administer and use the instrument. Data for this study were gathered to support the implementation of an academic and social-emotional well-being improvement program; we were authorized by the school district to use these data to examine the psychometric properties of the instrument.

Phase II. Empirical Study

Following development and administration of the QTI, we completed steps to examine the psychometric properties of the measure to establish evidence of the QTI's validity and reliability.

Participants. Data were collected from 683 students from seven high schools in a suburban school district in the mid-Atlantic region of the United States. All participating students in Grades 10–12 were transitioning into a new school. Participating students in Grade 9 were transitioning into a new high school from a nonfeeder middle school. About 3% (n = 27) were missing responses for one or more of the QTI items, and the decision was made to remove these participants from the dataset as the confirmatory factor analysis technique used does not allow for missing data. Our final analysis sample included 656 students, 40% of whom were in Grade 9, 28% were in Grade 10, 23% were in Grade 11, and 9% were in Grade 12. The sample included equal percentages of female and male students, with a majority of students (63%) being non-White minority, which mirrored the school's representation of minority students. The district also serves large numbers of military families and has an overall population of about 26% of students who are military connected. This sample included about 38% of students who identified as military connected. Although all participants were transitioning into a new school, 78% began the school year on the first day of classes; 22% transitioned in later in the school year.

Procedure

Data collection began after receiving Institutional Review Board (IRB) and school district human subjects review committee approvals. Trained counselors at each school facilitated electronic administration of the QTI for transitioning students within two weeks of enrollment, before delivery of any academic or social-emotional program services (excluding business-as-usual instruction). Students completed the QTI on a computer or tablet. Responses were conveyed to the research team without student identifiers. In addition to school name, enrollment date, date of completion, and demographic data, the measure included the 24 items discussed above and two open-ended items, which were excluded from this study. Items 5, 6, 8, 14, 15, 22, and 23 were reverse-scored before data analyses occurred. A retest was administered within 12 weeks of the initial administration; these data are the subject of ongoing study not reported here.

Analytic Approach

We used several analytic techniques to establish and support the validity and reliability of the QTI. To establish construct validity and support content validity, we conducted exploratory and confirmatory factor analyses (Field, 2013). To do this, we generated random numbers using the RV.Uniform computation in SPSS and split the dataset into two groups using the median random number as a separation point. We then conducted an exploratory factor analysis (EFA) with one group (n = 334) to examine the factor structure and a confirmatory factor analysis (CFA) with the second group (n = 332) to validate the findings that resulted from the EFA (Del Ray et al., 2015). We also calculated composite scores for the identified factors and used independent samples t-tests to examine differences in existing groups to explore criterion validity (Haggerty, Elgin, & Woolley, 2011). Finally, we calculated Cronbach's alpha coefficients to examine internal consistency to support the reliability of the measure. Means and standard deviations for the 24 QTI items are presented in Appendix B.

Findings

Exploratory Factor Analysis

We conducted an exploratory factor analysis using a principal components analysis (PCA) to identify common factors among the 24 QTI items and evaluate the appropriateness of each item for the purposes of the instrument. First, we examined a correlation matrix of the 24 items which revealed that four items—Items 5, 15, 16, and 22—shared small inter-item correlations (Pearson's $r \leq .15$) among eight or more other items; these items were subsequently excluded from further analyses (Field, 2013). Examination of the correlation matrix also revealed moderate correlations among the remaining items ($r < .50$), so we chose Varimax rotation for the PCA (Field, 2013). We opted to limit extraction to two factors that matched the hypothesized social-emotional and academic well-being constructs.

An initial PCA was conducted for diagnostic purposes and showed that 39.8% of the variance was explained by the two components. Factor 1 had an Eigenvalue of 6.12 and factor 2 had an Eigenvalue of 1.83. All but three items loaded on one of the two factors at .40 or greater and these items (Items 3, 6, and 14) were removed. We also made the decision to remove Item 12 as it was specific to military-connected students; we felt this would allow us to examine the QTI's appropriateness with all students experiencing school-to-school transition.

We then reiterated the PCA with the remaining 16 items. The analysis revealed that the two factors accounted for 44.9% of the variance, with factor 1 having an Eigenvalue of 5.22 and factor 2 having an Eigenvalue of 1.96. Each of the 16 items loaded on one of the two factors at .40 or greater (see Table 1). Seven items that were aligned with academic wellness loaded on factor 1, and eight items associated with social-emotional wellness loaded on factor 2. Of note was the finding that one of the items on the social-emotional subscale, "My teachers like me" (Item 2), loaded with the academic items rather than the social-emotional items. However, a review of

the literature regarding student-teacher relationships indicated that positive student-teacher attitudes, beliefs, and perceptions may impact academic performance as well as social growth (Crosnoe, Johnson, & Elder, 2004; Hamre & Pianta, 2006; Roorda, Koomen, Spilt, & Oort, 2011). Therefore, we opted to include Item 2 on the academic wellness scale for the remaining analyses, resulting in eight items for each subscale.

Table 1

Rotated factor loadings from PCA with Varimax rotation for QTI subscales

	Academic	Social-emotional
Item 1		.70
Item 2	.54	
Item 4		.70
Item 7		.57
Item 8		.64
Item 9		.67
Item 10		.67
Item 11		.53
Item 13		.76
Item 17	.47	
Item 18	.42	
Item 19	.84	
Item 20	.82	
Item 21	.60	
Item 23	.43	
Item 24	.60	

Confirmatory Factor Analysis

We conducted a CFA with the second sample to validate the factor structure that emerged from the EFA, to examine the model fit, and to explore covariances between factors. The CFA included the 16 items from the EFA and revealed statistically significant factor loadings for each, with factors ranging from .35–.74 for Academic well-being and .49–.75 for Social-emotional well-being (see Table 2). Further, the squared multiple correlation values, which explain the amount of variance accounted for by the common factor for each of the items, ranged from .12 to .56 for the Academic scale and from .24 to .57 for the Social-emotional scale, indicating that the two factors explained an adequate portion of item variance (Table 2). The *x*2 statistic for model fit was statistically significant, suggesting that the model was not a good fit to the data. However, sample size can affect the x2 outcome, with larger sample sizes resulting in inflated x2 values (Kahn, 2006; Mvududu & Sink, 2013), so we examined the root mean square error of approximation (RMSEA) as an alternate indicator. The RMSEA for this analysis was .09, higher than the traditional acceptable value of .05 but a value indicating adequate fit in a counseling context (Mvududu & Sink, 2013). A statistically significant positive correlation of .76 was observed between the two factors.

Table 2

Standardized regression weights (factor loadings) and squared multiple correlations from CFA.

	Standardized regression weights		Squared Multiple Correlations	
	Academic	Social-emotional	Acedemic	Social-emotional
Item 1		.74		.55
Item 2	.63		.39	
Item 4		.75		.57
Item 7		.53		.28
Item 8		.53		.28
Item 9		.54		.29
Item 10		.65		.42
Item 11		.49		.24
Item 13		.62		.38
Item 17	.44		.19	
Item 18	.63		.40	
Item 19	.70		.50	
Item 20	.74		.55	
Item 21	.54		.29	
Item 23	.35		.12	
Item 24	.64		.41	

Criterion Validity

We hypothesized that differences may exist between different groups of transitioning students and wanted to determine if the QTI was sensitive enough to detect such differences. For this sample, we were able to distinguish between those students who began the school year on the first day of classes and those who enrolled in the school later. In addition, the data were gathered from an evaluation that included about 38% of students who identified as military-connected, and we were able to discern between those students who were military dependents and their nonmilitary affiliated peers. To explore group differences and examine criterion validity (Haggerty et al., 2011), we calculated composite scores for the eight Social-emotional items (M = 30.81, *SD* =5 .28) and eight Academic items (M = 32.24, *SD* = 4.03) and conducted separate independent samples t-tests using enrollment time and military status as the independent variables.

Mean differences in subscale composite scores between those students who enrolled late compared to those who began the school year on the first day of classes were not statistically significant at the $p>0.05$ criterion level ($t = 1.42$, $df = 654$, $p = .16$ for Social-emotional scale and $t = 1.60$, $df = 654$, $p = 10$ for Academic scale) but late enrollers ($n = 143$) did manifest lower means on both subscales. For the military-connected vs. nonmilitary analyses, the military-connected group ($n = 252$) experienced higher

means on both subscales, but the comparison of means for the Social-emotional subscale (t = -0.50, df = 654, p = .62) and Academic subscale (t =- 0.79, df = 654, p = .43) were not statistically significant (see Table 3).

Table 3

Comparison of means for Social-emotional and Academic well-being subscale scores.

	Target Group Mean (SD)	Comparison Group Mean (SD)	*t*	*df*	*P*
Late enrollers[1]					
Social-emotional well-being	30.26 (5.12)	30.97 (5.32)	1.42	654	.16
Academic well-being	31.76 (4.16)	32.37 (3.99)	1.60	654	.10
Military-connected[2]					
Social-emotional well-being	30.94 (5.41)	30.73 (5.20)	-0.50	654	.62
Academic well-being	32.40 (4.15)	32.14 (3.96)	-0.70	654	.43

Internal Consistency Reliability

We also examined the internal consistency of the 16 retained items to establish reliability of the QTI. We calculated a Cronbach's alpha coefficient of .86 for the entire QTI scale and coefficients of .83 and .77 for the Social-emotional and Academic scales, respectively. These findings were comparable to prior test/retest coefficients of .87/.88 for the entire QTI scale, .85/.83 for the Social-emotional scale, and .77/.80 for the Academic scale (Garner & Chappell Moots, 2018) and are well above the .70 acceptable level for establishing internal consistency (Field, 2013). These findings also support the PCA and CFA evidence of construct validity.

Discussion

The findings from this study provide support for the use of the Quality of Transition Instrument (QTI) by school counselors in settings where students are experiencing school-to-school transition. We found evidence of two scales within the measure that appear to represent students' perceived academic and social-emotional well-being. Items within the academic domain pertained to feelings of academic self-competence in basic subject areas, along with items that indicate whether a student can cope with procedural aspects of his or her courses, such as homework and following the schedule. Items within the social-emotional domain pertained to students' emotional well-being, feelings of being supported at school by others and at particularly vulnerable times during the school day, and the existence of friendships with others.

Items on the measure correspond with specific areas where school counselors can both advocate on behalf of students and can take actions to improve students' well-being. For example, school counselors might meet with a student's teachers if the student indicates that he or she is struggling to keep up with schoolwork or cannot easily follow the schedule. Likewise, a counselor might also offer individual or small group counseling or facilitate the introduction to a peer if a student indicates that he or she feels lonely and does not have many friends. It is important to note that the measure offers counselors the opportunity to simultaneously gather data about two main areas of student concern and to assess how their scores may change over time. It may offer the counselor a data-informed picture of how students' social-emotional well-being is related to their academic well-being, and vice versa (Uvaas & McKevitt, 2013; Wiles et al., 2006).

By focusing on academic and social-emotional aspects of transition, the QTI may also offer those seeking to evaluate the impact of counselor- or school-based interventions, particularly in settings in which a large number of students may be highly mobile (Garner & Nunnery, 2018). When incorporated in a pretest and posttest manner into such a program, the QTI may provide one of many indicators of need or of improved school-wide responsiveness for its most vulnerable students.

Implications for practice

School counselors already support transitioning students by providing individual and small group counseling, peer-to-peer programs, and course placement and credit transfer assistance (Mmari, Roche, Sudhinaraset, & Blum, 2009). This is the case whether the school's transitioning population includes new students at the beginning of the year or midyear transitions made by migrant children (Splete & Rasmussen, 1977), military-connected students (Ruff & Keim, 2014) or students of poverty (Popp et al., 2011). Counselors can use the QTI to document and provide evidence for the impact of their work. This may prove to be meaningful when the measure is used consistently before and after an intervention,and if the measure is used in conjunction with other sources of information, such as attendance or discipline data.

In regards to counselors' data analysis and data-informed decision-making strategies, we would encourage that the strategy be mapped to the overall goal. However, at the individual student level, counselors may wish to monitor students' responses to each item in order to assess well-being at two time points. This may provide insights that allow focused effort towards supporting students with particular difficulties, such as anxiety or a perceived lack of relationships with trusted adults or peers.

At the group level, counselors may wish to attend to the items that require reverse scoring (see Appendix A), and then sum the scores for the academic and social-emotional well-being subscales. This would result in an overall assessment of students' well-being in one area or another. If collected before and after an intervention, such data may help identify areas of need or quantify the impact of a program on a given population of students. Finally, the magnitude of any gain in overall well-being as reported

by groups of students may be useful for counselors who wish to assess the impact of different strategies, such as the relative impact of a peer-to-peer mentoring system vs. additional actions by teachers or the counselor.

Limitations

One limitation of our study is the lack of additional information that was available about the sample, such as pre-existing difficulties, language barriers, special educational needs, or extensive prior experience with transitions. An additional consideration is that although counselors administered the measure in a one-on-one meeting with the students, we were not supplied with students' verbal reports or other notes gathered by the counselor that may have been helpful for corroborating the questionnaire responses and helping to further establish construct validity beyond the factor analytic techniques (Sink & Spencer, 2007).

A third limitation is the lack of available normative data. Having a nontransitioning group respond to the questionnaire in a pretest and posttest format would have permitted comparisons as to the stability of the measure in students who may have been experiencing some of the same school-related stresses but who were not transitioning between schools. Fourth, due to the nature of the applied context for the study, we were unable to simultaneously administer other, established measures of well-being. A final caution associated with the use and interpretation of these data is that our sample was comprised of high school students exclusively. Further research is needed to determine if the factor structure holds for students in earlier grade levels who may be experiencing school-to-school transition at the elementary to middle school level, or within grade levels but between different schools.

Future directions

Future research should continue to develop evidence to enhance the reliability and validity of the QTI. The measure has the potential to offer a rapid assessment of need or impact, particularly in schools where a comprehensive approach to transition support is in place (Garner & Chappell Moots, 2018). Comprehensive programs tend to involve academic and social-emotional interventions (Barton, 2006) and therefore offer the potential to leverage the skills of counselors in collaborating with classroom teachers (Holland-Jacobsen, Holland, & Cook, 1984). The QTI may also help educators understand how programs are facilitating change in student well-being.

Other considerations for future research include investigating the psychometric properties of the measure in regards to its sensitivity to differentiate between students who are experiencing transitions for varying reasons to further examine criterion validity. Although not intended as a clinical diagnostic measure, we anticipate that future studies could also explore normative aspects of the transition process for different populations and potential features of transition quality for developmental and mid-year transitions.

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Appendix A

Quality of Transition Instrument (QTI)

Please read each statement and circle the number that applies.	Strongly Disagree 1	Disagree 2	Neither Disagree nor Agree 3	Agree 4	Strongly Agree 5
Social - Emotional Wellbeing					
1) I feel comfortable in my new school.	1	2	3	4	5
2) My teachers like me.	1	2	3	4	5
3) There is at least one adult in the school that I can talk to if I have a problem.	1	2	3	4	5
Think about how you feel at school...					
4) I feel happy.	1	2	3	4	5
5) I feel anxious. *	1	2	3	4	5
6) I feel worried about things. *	1	2	3	4	5
7) I feel safe.	1	2	3	4	5
8) I feel lonely. *	1	2	3	4	5
9) I always have someone to sit with at lunch.	1	2	3	4	5
10) Students are nice to each other at this school.	1	2	3	4	5
11) Other students understand what it is like to move to a new school.	1	2	3	4	5
12) Other students understand what it is like to have a mom or dad in the military.	1	2	3	4	5
13) I have good friends at this school.	1	2	3	4	5
14) I have trouble falling asleep at night. *	1	2	3	4	5
Academic Wellbeing					
15) The work at this school is difficult for me. *	1	2	3	4	5
16) I can do the work in math lessons.	1	2	3	4	5
17) I can do the work in reading lessons.	1	2	3	4	5
18) I can get help with my homework if I need it.	1	2	3	4	5
When I am in class...					
19) I listen.	1	2	3	4	5
20) I do my work.	1	2	3	4	5
21) I ask questions.	1	2	3	4	5
22) I think about other things.*	1	2	3	4	5
23) I am easily distracted. *	1	2	3	4	5
24) I know what the schedule is.	1	2	3	4	5

* Reverse scored

Appendix B

Table B1. *QTI item means and standard deviations.*

	Mean	*SD*
Item1	4.06	0.81
Item 2	4.15	0.70
Item 3	3.90	1.08
Item 4	3.79	0.90
Item 5	3.29	1.13
Item 6	3.33	1.20
Item 7	3.98	0.89
Item 8	3.77	1.16
Item 9	4.07	1.08
Item 10	3.67	0.92
Item 11	3.58	0.98
Item 12	3.44	0.98
Item 13	3.88	1.07
Item 14	3.74	1.20
Item 15	3.63	1.00
Item 16	3.86	0.99
Item 17	4.12	0.77
Item 18	4.19	0.78
Item 19	4.24	0.71
Item 20	4.37	0.65
Item 21	3.64	1.03
Item 22	2.68	1.04
Item 23	3.20	1.09
Item 24	4.34	0.72