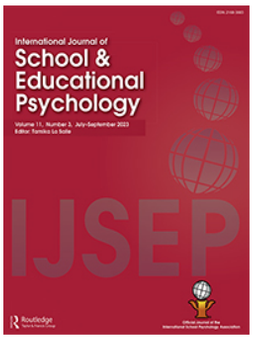

International Journal of School & Educational Psychology

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/usep20

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To cite this article: June T. Forsberg, Brenda Ghazale, Samer Siefeldeen & Jon-Håkon Schultz (2023): Measuring promotors of school functioning: Informing school-based psychosocial support for crisis-affected students in Lebanon, International Journal of School & Educational Psychology, DOI: 10.1080/21683603.2023.2229260

To link to this article: https://doi.org/10.1080/21683603.2023.2229260

Published online: 07 Jul 2023.

INTERNATIONAL JOURNAL OF SCHOOL & EDUCATIONAL PSYCHOLOGY
https://doi.org/10.1080/21683603.2023.2229260

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Measuring promotors of school functioning: Informing school-based psychosocial support for crisis-affected students in Lebanon

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ABSTRACT

The evolving situation in Lebanon is characterized by multiple crises that affect education and can negatively affect a student's school-functioning and mental health. The Ministry of Education and Higher Education decided in 2019 to further intensify and upscale implementation of school-based psychosocial support. This study is a contextualization and validation of the Student Learning in Emergencies Checklist for use in Lebanon. A 27-item questionnaire was proposed and tested to explore categories for measuring the effect of psychosocial support on academic functioning and academic performance and build evidence for program design. Promotors for school functioning were also explored. The participants (N = 1048) were divided between Lebanese students (N = 573) and non-Lebanese students (N = 520) with a mean age of 11.77 and gender balance. Multiple regression analysis demonstrated that the combined proposed categories explained 33.7% of the variance of school functioning as opposed to other factors. The new categories for *safety and support at school* and *safety and support at home* were found to predict academic functioning alone. Lebanese students reported significantly reduced scores in *safety and support at school* compared to non-Lebanese students. The need for psychosocial and educational support increased significantly with age, and males reported lower scores than females. Content and strategies for school-based psychosocial support for students are discussed.

KEYWORDS

Well-being; school functioning; cumulative stress; education in emergency; psychosocial support

The crisis context of Lebanon

Since the Syria crisis erupted in early 2011, a large number of refugees have crossed the border into Lebanon. More than 10 years later, Lebanon continues to host the largest number of refugees per capita in the world. The Lebanese government estimates that they host 1.5 million Syrian refugees in addition to the Lebanese population of 6.5 million (UNHCR, 2020). More than 200,000 displaced Syrian school children have been included in governmental schools, with a fully certified formal education following the Lebanese curriculum. The presence of a large refugee population in a small country which is facing a deep economic crisis, high unemployment, and rising poverty is increasingly affecting inter-community relations and social stability (UNHCR, 2020).

During the COVID-19 lockdown from March 2020, schools closed and began more than a full year of homeschooling, resulting in anticipated reduced learning outcomes and a high risk of students dropping out or never returning to school. In 2021 28% of students (aged 15–18) stopped their education altogether (UNICEF, 2022). The COVID-19 outbreak hit the country at a particularly difficult time of economic decline and political fragility, leading to a further worsening of the socio-economic situation. The devastating impact of the Beirut Port explosions in August 2020 added a tremendous strain to the country's general economy, and created additional loss of jobs, despair, and tensions (UNHCR & MOSA, 2021).

Lebanon's political leaders declared a "state of economic emergency" in September 2019. The current situation was summarized by the World Bank in October 2021 as follows: poverty is on the rise, as well as the number of households facing challenges in accessing food, healthcare, and other basic services. There are severe shortages of medication in the health care sector, while health services have suffered heavily (World Bank, 2021). The educational sector is also greatly affected by the interaction of the multiple crises. The United Nations High Commissioner for Refugees (UNHCR) and the Ministry of Social Affairs (MOSA) (2021) have defined the situation as a "humanitarian crisis within an economic crisis." The evolving situation in Lebanon is characterized by multiple crises that affect and disrupt the quality of education.

Crisis affecting school functioning

School functioning describes an overall situation that includes a sense of well-being, academic functioning,

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and performance. The multiple crises in Lebanon causes potential high levels of stress that can negatively affect a student's school-functioning and their mental health. The situational analysis provided by the UNHCR and MOSA (2021) can be seen as three broad categories of stress for children exposed to the multi-crisis context. The first category is *general daily stress* caused by demonstrations, roadblocks, school disruption, poverty, parents unemployment, isolation due to COVID-19 and so on. The second category is *neglect* due to food shortages, lack of sufficient health service, child labor, lack of sufficient parental support and so on. The third category is *traumatic stress* caused by exposure to traumatic events, such as experiencing the Beirut Port explosions, domestic violence, sexual abuse, previous war-experiences and so on. Traumatic stress describes a variety of emotionally overwhelming reactions to traumatic events, such as actual or threatened serious injury or death; post-traumatic stress disorder (PTSD) is a potential outcome of traumatic exposure (American Psychiatry Association [APA], 2013).

Several studies have identified children and youth as a vulnerable group when exposed to high levels of stress and traumatic stress (e.g., Alisic et al., 2014; Norris et al., 2002). The cognitive abilities and lack of life experience of schoolchildren may reduce their ability to, for example, handle acute helplessness, or comprehend and make sense of the world; and may cause a loss in perceived safety and social support during crises and disasters (Norris et al., 2002).

Ongoing conflicts and war conditions have a major impact on children's lives in terms of mental health consequences, and it is well-documented that children living in conflict-affected areas experience multiple and ongoing stressful situations and psychological traumas (e.g., Dimitry, 2011). The negative effect of trauma on cognition is increasingly recognized. The neurocognitive domains most commonly affected are episodic memory, attention, executive functioning, and speed of information processing, with severe effects observed in verbal memory and attention/working memory (e.g., Malarbi et al., 2016).

Providing school-based support for crisis affected students

A review of intervention research on the treatment of those exposed to disasters and mass violence (Hobfoll et al., 2007) identified empirically supported principles that are widely used to inform intervention and prevention efforts, in the immediate aftermath of a critical event, and up to three months thereafter. In recent decades, the concept of trauma-informed approaches has spread, attracting interest among practitioners and scholars in various fields, including education (Champine et al., 2019). Trauma-informed schools (see, e.g., Luthar & Mendes, 2020; Overstreet & Chafouleas, 2016) are often anchored in theoretical frameworks such as the Guidance for Trauma-informed Approach (Substance Abuse and Mental Health Services Administration [SAMHSA], 2014).

Examples of practical and evidence-informed guidelines with modular approaches include Psychological First Aid (PFA) (Brymer et al., 2006) with a version adapted for schools (Brymer et al., 2012). Another example is the Better Learning Program (BLP) that was selected by MEHE and CERD for implementation in Lebanese schools. BLP Level 1 (BLP-1: Norwegian Refugee Council [NRC], 2019) and Level 2 (BLP-2: Norwegian Refugee Council [NRC], 2017) is a school-based, teacher-led universal psychosocial program. The term "psychosocial support" (PSS) is commonly used within the field of education. Psychosocial refers to "the dynamic relationship between the psychological and social dimension of a person, where the one influences the other" (IFRC, 2014, p. 11).

Objectives of the present study

The main objective of the present study was to build evidence for informing program design when delivering school-based psychosocial support in public schools in Lebanon. First, for the contextualization and validation of the Student Learning in Emergencies Checklist (SLEC) (Forsberg et al., 2023) in the Lebanese context, a 26-item questionnaire was proposed and tested for measuring the effect of PSS on academic functioning. Secondly, we wanted to explore whether there are differences in academic functioning and performance according to demographic variables, gender and age, in two separate school shifts of Lebanese and non-Lebanese students in governmental schools.

Method

Context

At the start of the Syrian crisis, the Government of Lebanon opened an additional shift in public schools for non-Lebanese students, providing afternoon classes (second shift). The second shift schools all have a designated PSS counselor delivering weekly sessions in class, as well as individual counseling. In early 2019, the MEHE decided to further intensify and upscale the implementation of school-based PSS for both shifts. A partnership was formed between MEHE, the Center for Educational Research and Development (CERD), the Norwegian Refugee Council (NRC) and UiT, the

Arctic University of Norway. The aim was to contextualize and deliver BLP. The original BLP manuals were reviewed, contextualized, aligned with the national curriculum to be integrated into regular teaching, and finally approved by CERD and MEHE. By January 2020, MEHE had conducted BLP training for 76 selected teachers from eight first shift schools, and all 449 counselors from the 333 second shift schools. The program is implemented for students aged 6 to 14 years. This study was conducted in February 2020, before COVID-19 and the Beirut Port explosions.

Participants, procedure, and ethics

A total of 1080 students (574 females and 505 males) attending public schools in Lebanon participated in this study. 527 Lebanese students were attending first shift (283 females and 244 males; mean age 11.37, SD = 1.63), and 552 non-Lebanese students were attending the second shift (291 females and 261 males; mean age 12.29, SD = 1.53). Thirty-two children in the second shift sample were not Syrian nationals and were excluded from further analysis, leaving the second shift sample to consist of displaced Syrian students ($N = 520$: 275 females). No significant discrepancy between number of females and males participants was detected (95% CI: .44–.50, Skewness = .13, SE = .08). The mean age was 11.79 (SD = 1.59). Students were divided into age groups: 10 years old or below (255: 152 females), 11–12 years old (438: 246 females), 13–14 years old (304: 131 females) and 15 years old or higher (51: 29 females).

Students with low academic functioning were identified as follows: the sum score was calculated for all items in the academic functioning category (see Table 1). The reported mean for sum academic functioning was 17.43 (SD = 2.72). Low academic functioning was defined as a sum academic functioning below the mean ($N = 310$). Characteristics of the students who reported low academic functioning are presented in Table 1.

Schools were randomly selected, one school from each shift in each school district. Each school director was contacted, the study was explained and the approvals from MEHE and CERD were presented. A total of 16 schools participated, eight from the morning shift and eight from the afternoon shift. All students in Grades 4–6 were invited to participate. The selection procedures aimed to achieve a representative sample of the two school shifts regarding socioeconomic status, as well as urban and rural context.

Ethics approval was given by MEHE and CERD who approved the study protocol and procedures. Parents were informed of the research through formal school-home channels, and students gave oral consent after receiving explanations of the aim of the study, their anonymization, and their ability to withdraw at any time. All students present on the day of the data collection were invited to participate. Fewer than 25 students did not want to participate and left the classroom, while the remainder were led through the questionnaire. CERD and NRC staff were present in the classroom together with the regular teacher. They were trained in the questionnaire and read the items out loud, explained what they meant, and explained what the response options represented for each item. Each session took approximately 30 minutes.

Measurement

The outcome measures were the promotors for school functioning measured through self-reported academic functioning and academic performance measured through grades. *Academic performance* or achievement is defined as the extent to which students have achieved their educational goals, whereas *academic functioning* refers more to the cognitive process of learning. *School functioning* usually describes the overall situation, including well-being, academic functioning, and performance.

Table 1. Characteristics of gender, age groups and shift for students with low academic functioning.

	Low academic functioning ($N = 310$/29,6%)		
	Females 136	Males 174*	Total 310
Age group:			
10 years old and below	34	30	64
11–12 years old	49	66*	115
13–14 years old	44	67*	111
15 years old and higher	9	11	20
AM shift	76	96*	172
PM shift	60	78*	138

*Significantly more males at level $p < .01$.

The measurement tool was a locally adapted version of the SLEC (Forsberg et al., 2023). The SLEC is a result of a research/practice-based collaboration between two research facilities, the Arctic University of Norway (UiT) and New York University (NYU), and a non-governmental organization, NRC. The project combined established scientific knowledge, valid research methods, and field experience from the Middle East context in accordance with international guidelines for best practices (Inter-Agency Network for Education in Emergencies [INEE], 2010). The purpose of the SLEC is to (a) establish a baseline prior to the implementation of systematic psychosocial support programs or interventions, (b) provide information about the target group, and (c) measure improvement after psychosocial support have been carried out. The SLEC measures promotors for school functioning in five different categories: *safety and adaptability*, *emotion regulation*, *school support*, *family support*, and *hope and well-being*, and is available in English and Arabic.

The contextualization process of SLEC followed the recommend validation approach to ensure that the instrument is contextually relevant (DeVellis, 2011; Forsberg et al., 2023). The initial item pool (SLEC-26) was first reviewed by the CERD and NRC, which considered the context sensitivity and the need for additional items. The item pool was supplemented with items measuring self-perceived academic functioning, study skills and sleep quality. All items were reviewed by an expert panel consisting of NRC staff, CERD staff, school staff and students. The instrument was then administered to 65 randomly selected students for an instrument test. Thereafter, the NRC/CERD conducted four focus group interviews (FGI) involving a total of 11 teachers and 20 students, who also participated in the instrument test. The FGI with teachers covered instrument design, constructs/items, choice of wording, number of items and their experiences from helping the students to manage the instrument.

The FGIs were conducted by two experienced NRC officers, and the focus was on evaluating the items. Language complexity was assessed, and participants provided feedback on what they thought the items measured and what they intended to measure. Based on feedback from the instrument test and the FGIs, some items were rephrased. When the revision was finalized, the instrument was back-translated into English by an independent translator resulting in minor adjustments in the Arabic version. The Arabic translation of the questionnaire is available upon request to the corresponding author.

Self-report measurement tool

Items in the tool tested included sense of safety and adaptability (5 items), emotion regulation (3 items), school support (3 items), family support (3 items), hope and well-being (5 items), study skills (5 items), academic functioning (2 items), and sleeping quality (1 items). All items were expressed as statements and were assessed on a four point-scale (always – often – rarely – never). See Appendix A: Items listed under respective suggested categories.

Objective measure: academic performance

According to the Lebanese curriculum, learning achievement is summatively assessed at the end of the school year, as it is in every grade throughout schooling. This is based on a combination of teacher assessment and performance on teacher-produced monthly tests and end-of-semester tests. The administrator sends the data to the Ministry of Education twice during the academic year.

Math and the Arabic language were selected as subjects in order to focus on literacy and numeracy. Grades in Arabic and math were collected from 798 of the children (374 Lebanese and 450 non-Lebanese). The grades are scored from 1–20 for the monthly assessment only.

Statistical analysis

All data was explored in SPSS 28.0 (SPSS, Inc., Chicago, IL). The suggested categories were explored through exploratory factor analysis (EFA) and a reliability test. The EFA was conducted with a varimax rotation. The scree plot was first examined for eigenvalues >1 to establish the number of categories in the tool. When the scree plot revealed seven factors with eigenvalues >1, a second EFA was conducted with a fixed number of seven factors to extract. The reliability of the new established categories was further assessed with Cronbach`s alpha.

Descriptive statistics (mean and standard deviation) were explored for gender, age groups, shifts and outcome variables. Promotors of academic functioning and academic performance were analyzed using linear regression analysis, and multivariate analysis of variance (MANOVA) was used to explore differences between genders, age groups and shifts. Theoretically interesting effects and significant effects were followed up by contrast analysis. The least significant difference (LSD) adjustments were used for multiple comparisons. A p-value of .05 indicated statistical significance for all analyses.

Results

Part I: exploring the factor structure of the tool

The Bartlett's test of sphericity indicated that the correlation matrix was not random, $\chi^2(351) = 4583.32$, $p < .001$, and the KMO was .88, well above the minimum

standard for conducting factor analysis. It was therefore determined that the correlation matrix was appropriate for factor analysis. The EFA revealed a 7-factor structure that represented the items in the tool. The factor structure and reliability of the categories are presented in Table 2 and Appendix B.

The reliability assessment revealed that three of the categories, *safety & support at home*, *safety & support at school*, and *academic functioning*, maintained satisfactory scale reliability with a Cronbach`s alpha value of 0.70 (Yang & Green, 2011), whereas the categories *hope and accomplishment*, *emotion regulation* and *help-seeking*, did not maintain sufficient reliability. One item that measured *safety & support at school* was removed from the category to increase reliability.

Promotors for academic functioning and academic performance

Linear regression was used to explore whether the reliable categories predicted academic functioning and academic performance, and can therefore be considered promotors. The categories that did not maintain sufficient reliability were dissolved and tested at item-level. Two separate multiple regression models were conducted. Academic functioning was used as the dependent variable in the first model and academic performance was used as the dependent variable in the second model.

The model for academic functioning indicated that the reliable categories and additional items combined explained 33.7% of the variance ($R = .58$, $R^2 = .337$, $F\ (14, 978) = 35.55$, $p < .001$). Both *safety & support at school* and *safety & support at home* were found to predict academic functioning ($\beta = .16$ and $\beta = .14$, $p = <.001$, respectively). Single items that were found to predict school functioning are presented in Table 3. Gender and age were also explored as predictors in a separate regression model but were not found to predict school functioning ($\beta = .03$, $p = .15$ and $\beta = .01$, $p = .93$, respectively).

The second regression model, which explored promotors for academic performance, indicted that the reliable categories and additional items combined explained 5% of the variance ($R = .23$, $R^2 = .053$, $F\ (16, 739) = 35.55$, $p < .001$). *Safety & support at home* had tendencies as a predictor ($\beta = .08$, $p = .08$), whereas *Safety & support at school* was not found to predict academic performance ($p = .49$). Help-seeking at home was the only item that was found to predict academic performance ($\beta = .18$, $p < .05$).

Specific focus areas for students with low academic functioning

We explored whether students with low academic functioning had different promotors for academic functioning than the total sample. Two linear regression analyses were conducted to explore the promotors for academic functioning and academic performance in the low academic functioning sample. The model for academic functioning revealed no major differences ($R = .53$, $R^2 = .287$, $F\ (15, 269) = 7.23$, $p < .001$) compared to the model that included the total sample, however, the effect of all promotors was reduced. The model for academic

Table 2. The factor structure and reliability of the categories.

Proposed Categories	New Categories	α	Items	α if Item Removed	Items Removed
Academic functioning and study skills	Academic functioning	0.70	13, 14, 23, 24, 25		
Safety and home support	Safety and support at home	0.70	2, 10, 12, 18, 19		
Safety and school support	Safety and support at school	0.67	4, 9, 11, 15, 17	0.70	4
Hope and self-efficacy	Hope and accomplishment	0.58	3, 6, 7, 16, 20, 21		
Emotion regulation	Emotion regulation	0.55	1, 5, 8		
Study skills	Help-seeking	0.34	22, 26		
Sleep quality	Sleep quality	–	27		

Table 3. Promotors for academic functioning.

Promotors for academic functioning	β	t	*p*
Categories			
Safety & support at school	.16	5.23	<.001
Safety & support at home	.14	4.30	<.001
Item-level			
3. It is easy for me to stick to my aims	.10	3.58	<.001
7. If I am in trouble, I can think of a solution	.11	3.9	<.001
8. When I feel angry, I can calm myself down	.08	2.73	<.01
20. I am sure I will graduate from school	.20	7.1	<.001
22. I ask for help from my teacher if I don't understand the schoolwork	.13	4.57	<.001
27. I have trouble sleeping	.06	2.13	<.05

performance found that the promotors explained more of the total variance with the low academic functioning students compared to the total sample ($R = .36$, $R^2 = .126$, F (15, 189) = 1.83, $p < .05$).

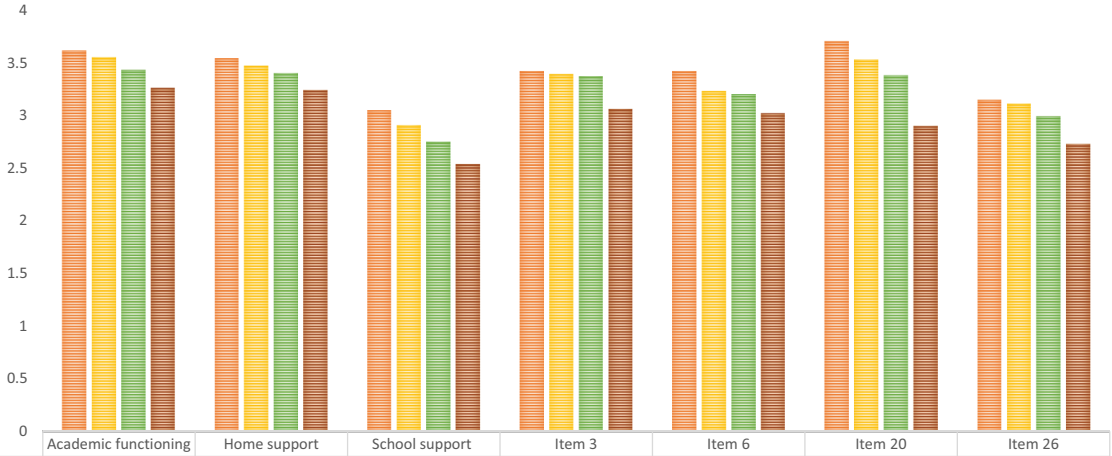
Part II: differences in academic functioning between shifts, age groups and gender

MANOVA was used to explore differences in academic functioning and promotors for academic functioning between shifts, age groups and genders. Shift was found to have a main effect on safety & support at school (F = 9.60, $p < .001$). The AM shift reported a significantly reduced mean in safety & support t school compared to the PM shift ($m = 2.80$ and 2.96, SD = .73 and .63, respectively). The analysis also revealed an interaction effect of shift*gender on safety & school support (F = 5.92, $p < .01$) and academic functioning (F = 4.84, $p < .05$). Females in the AM shift reported a significantly reduced mean in safety & support at school ($m = 2.78$, SD = .83) compared to the males ($m = 2.83$, SD = .80) ($p < .01$). Females in the PM shift reported a significantly higher mean on academic functioning ($m = 3.57$, SD = .46) compared to males ($m = 3.44$, SD = 53) ($p < .01$).

Age group had a main effect on academic functioning (F = 11.62, $p < .01$), safety & support at school (F = 12.26, $p < .01$), and safety & support at home (F = 5.07, $p < .01$). The LSD post hoc test showed that the mean decreased significantly with age in all variables. The main effects of age group are presented in Figure 1. There was also an interaction effect of age group*gender on academic functioning (F = 2.43, $p = .05$), where females reported a higher mean in academic functioning compared to males in all age groups.

There were several significant main effects of item-level measures on shift, age groups and gender. These are all presented in Table 4. Items 7, 8 and 20 had a significant effect on shift. The AM shift reported significantly reduced means for all items compared to the PM shift: Item 7 (AM $m = 3.49$, SD = .82, PM $m = 3.52$, SD = .81), Item 8 (AM $m = 2.47$, SD = 99, PM $m = 3.10$, SD = .86), and Item 20 (AM $m = 3.49$, SD = .93, PM $m = 3.51$, SD = .79). Items 3, 6, 20 and 26 had a significant effect on age group. The means are presented in Figure 1. Item 5 also had an effect on gender, and females reported a significantly lower mean (3.02, SD = .98) compared to males ($m = 3.33$, SD = .90).

A separate MANOVA was conducted to explore differences in academic functioning and promotors for academic functioning between shift, age groups and genders for the students with low academic functioning ($N = 310/29{,}6\%$). There was a main effect of age group on academic functioning (F = 3.24, $p < .05$) and safety & support at school (F = 2.80, $p < .05$). The LSD post hoc test showed that the mean decreased with age in both academic functioning and support & support at school for the total sample. The 15 or above age group reported significantly reduced academic functioning ($m = 2.63$, SD = .52, $p < .01$) compared to the other age groups. The 15 or above age group reported a significantly reduced mean ($m = 2.28$, SD = .78, $p < .01$) for safety & support at school compared to the other age groups, and the 13–14 year old age group reported a significantly



	Academic functioning	Home support	School support	Item 3	Item 6	Item 20	Item 26
10 years old and below	3.61	3.54	3.05	3.42	3.42	3.7	3.15
11-12 years old	3.55	3.47	2.91	3.39	3.23	3.53	3.11
13-14 years old	3.43	3.4	2.75	3.37	3.2	3.38	2.99
15 years old and higher	3.26	3.24	2.54	3.06	3.02	2.9	2.73

Figure 1. Main effects in academic functioning, promotors, and significant items between age groups.

Table 4. Main effect of item-level measures on shift, age group and gender.

	Shift		Age group		Gender	
Item	F	*p*	F	*p*	F	*p*
3. It is easy for me to stick to my aims			3.10	<.05		
5. When I am scared, I can calm myself down					24.37	<.001
6. It is easy for me to accomplish my goals			4.61	<.01		
7. If I am in trouble, I can think of a solution	4.15	<.05				
8. When I feel angry, I can calm myself down	5.97	<.01				
20. I am sure I will graduate school	5.64	<.01	18.71	<.001		
26. I can ask for help from my family when I face difficulties doing the homework			3.64	<.01		

reduced mean ($m = 2.40$, SD = .73, $p < .01$) compared to the 10 and below age group ($m = 2.69$, SD = .70).

Differences in academic performance between shift, age groups and gender

The effect of shift, age groups and gender on academic performance was also explored with a MANOVA (F = 6.08, $p < .01$). The model found that shift had an effect on academic performance in Arabic, but not in math (F = 19.92, $p < .01$and F = 1.40, $p = .24$, respectively). The AM shift had significantly reduced grades in Arabic ($m = 10.78$, SD = 2.96) compared to the PM shift ($m = 11.71$, SD = 2.94). The grade scores between the shifts (AM: $m = 10.73$, SD = 3.88 and PM: $m = 11.05$, SD = 3.90) were not significantly different in math.

The model further revealed an effect of gender in Arabic (F = 14.68, $p < .001$), but not in math (F = .48, $p = .49$). In Arabic females had significantly higher grades ($m = 11.65$, SD = 2.91) compared to the males ($m = 10.84$, SD = 3.05). There was no effect of age group on academic performance (F = 1.33, $p = .21$).

Discussion

The purpose of the present study was two-fold. The first purpose was to build evidence to inform program design when delivering school-based psychosocial support in public schools in Lebanon. The second purpose was to explore whether there are differences in academic functioning and performance according to school shifts, age groups or gender.

Part 1: the tool

The EFA revealed a different factor structure than expected, which resulted in adjustments between the categories. Three of seven empirically made categories (academic functioning, safety & support at school and safety & support at home) obtained sufficient reliability as categories, but four categories (hope & accomplishment, emotion regulation, help-seeking and sleep quality) that did not maintain sufficient reliability were dissolved and tested at item-level. Given that the EFA fit indices of the seven factor models were acceptable, there is conflicting evidence regarding the extent to which the empirically made factors strategy is supported by the data. Such a situation can arise when scales are too short, given that the calculation of the alpha coefficient is dependent on the number of items in the scale. The underlying categories are also defined and operationalized broadly, which results in item responses being less closely linked (Kline, 2011; Osborn & Fitzpatrick, 2012).

The three categories that did obtain sufficient reliability combined items from four of the hypothesized categories. The first category (academic functioning) was added with three more items from the hypothesized study skills category. The items that were added involved planning and initiating homework, and having the ability to persevere when doing school work. This suggests that these specific skills are closely related to the ability to concentrate and remain focused when doing school work. The second category (safety & support at school) combined one item from the hypothesized well-being category, and one item from the hypothesized safety category, with the school support items. The reliability of the category was increased, however, when the item that specified the feeling of being safe at school was removed. This suggests that feeling safe at school also involves other circumstances and characteristics than emotional support from teachers or other school staff. The third category (safety & support at home) combined one item from the hypothesized safety category, with the home support items. This suggests that emotional support from parents is a basic premise for children to feel safe at home. Both safety & support at school and safety & support at home were found to be important predictors of academic functioning in this study.

The remaining four empirically made categories, Emotional regulation, self-efficacy, future hope and sleep quality, did not obtain sufficient reliability and were not further explored as categories. However, ability to sufficient regulate negative emotions, feeling of self-efficacy, future hope and good sleep quality, have earlier

been established as important predictors of the ability to function and perform at school (Hascher, 2010; Schultz et al., 2021; Snyder et al., 2002). This provides arguments for including these items in the exploratory analyses for academic functioning and academic performance, but the items in the hypothesized categories were probably operationalized too broadly to function as categories. Several of the items were found to predict academic functioning in this study.

A common feature of the empirical categories that did not obtain sufficient reliability is that the items describe complex emotional abilities for children, such as the identification, awareness, utilizing, and regulation of both positive (hope and efficacy) and negative (fear and anger) emotions. In the reliable categories, on the other hand, the items either describe specific skills (academic functioning) or support from others (school or home), which are easier for the target group to consider.

Part II: differences in academic functioning and performance

Several differences in academic functioning were found between shifts, age groups and genders. The AM shift with Lebanese students reported a significantly reduced mean in safety & support at school compared to the PM shift with Syrian students. This might indicate that since the PM counselors have had general training in PSS, the staff on the PM shift maintain a higher focus on supporting the children compared to the staff on the AM shift – including the presence of the psycho-social counselors only in the PM shift. Females reported higher academic functioning than males. These results indicate that feeling safe is a premise for academic functioning. This is in line with Maslow`s Needs Theory and studies that have explored counseling in crisis based on this hierarchy framework (Harper et al., 2003).

The most clearest results were the difference between the age groups in the categories academic functioning, safety & support at school, and safety and support at home, and the other explored items, where that the mean decreased significantly in all variables for each age group. This indicates that the need for PSS increases with age. A pattern of reduced academic functioning with age was also found in the low academic functioning sample. The sample also reported reduced safety & school support with age.

Shift and gender had effects on grades in Arabic, but not in math, as regards academic performance. The AM shift had higher grade scores than the PM shift, and females had higher grade scores than males.

Strengths and limitations of the study

There are several strengths of the present study. The first objective highlights an urgent need to build evidence for delivering PSS in public schools in Lebanon, and this study has documented several predictors of academic functioning and performance for this sample that need to be strengthened when delivering PSS and educational support in this context. The second objective highlights that there are few differences in academic functioning and academic performance between Lebanese students and non-Lebanese students, and thus the need for PSS is equally important for both groups. The Syrian crisis and the overall crisis context in Lebanon, as described in the introduction, is a major threat to psychosocial well-being and education for children living in this area. The situation has become even more pressing since this study was conducted.

A limitation of the study is that academic functioning and performance is only studied in public schools in Lebanon. Data from private schools (in the 2019–2020 school year only 32% were enrolled in public schools: Center for Educational Research and development [CERD], 2022) and a national grade average would have provided more information about the level of academic functioning and performance in public schools compared to other socio-economic backgrounds and national standards.

Conclusions

The tool had a different factor structure than expected and three of the categories did not maintain sufficient reliability, however, three new categories were constructed with sufficient validity. The tool can be used for research purposes with the new categories, but would need to be supplemented with standardized tools for emotion regulation, self-efficacy, and future hope. The tool with new categories is recommended for use in Lebanon, as a short and practical tool for evaluating and monitoring basic concepts of PSS for three categories: *safety and support at school*, *safety and support at home* and *academic functioning*. Find the tool in Appendix C: SLEC-14, contextualized for use in Lebanon.

In this study, the Lebanese students had significantly reduced grades in Arabic compared to non-Lebanese students. Females had significantly higher grades than males. In math, the grade scores between the shifts were not significantly different. The AM shift with Lebanese students reported significantly reduced safety & support

at school compared to the PM shift with non-Lebanese students. This indicates that the Lebanese school system was also challenged prior to the pandemic, and that the MEHE decision in 2019 to upscale PSS was justified. There were gender differences in both the Lebanese and non-Lebanese students. Lebanese females reported significantly reduced safety & support at school compared to Lebanese males. This suggests that the teachers and other school personnel facilitate support for male students. Non-Lebanese females reported significantly higher academic functioning compared to non-Lebanese males. There was a significant decrease in all outcome measures with age, and lower scores were reported for each age group. Females reported higher academic functioning compared to males in all age groups.

Implications for practice and further research

The new proposed categories in the tested tool can guide teachers regarding what to focus on and what to measure. The two new categories, *safety and school support* and *safety and support at home*, are defined as promotors of academic functioning and performance, and are closely linked to ordinary teaching and to the overarching goals of the curriculum.

Our results indicate an increased need for psychosocial and educational support as students get older, and that males should be targeted as they show lower scores for school functioning than females. Given the long-term disruption of education and the prolonged situation of multiple crises, we hold that all students need a strengthened school-based PSS and follow-up on educational functioning. Teachers, supported by psycho-social counselors, may offer a good point of intervention with these conflict-affected students.

In view of the limited literature on teacher support for students studying in a prolonged crisis, more research is needed on the use and delivery of school-based and teacher-led psychosocial support to stimulate and recover school functioning. This study should be replicated in the context of Lebanon with a randomized control design, measuring the effect of school-based psychosocial and educational support in Lebanon, as well as in other types of emergency contexts.

Acknowledgments

This study was a collaboration between the Center for Educational Research and Development (CERD); Reaching All Children with Education (RACE), a department within the Ministry of Education (MoE); the Norwegian Refugee Council (NRC); and UiT, the Arctic University of Norway. We gratefully acknowledge our close collaboration with the Ministry of Education, which was instrumental in reaching schools and respondents. Special thanks to Camilla Lodi and NRC Lebanon for their participation and support. This study was partly funded by the charity organization Porticus, and by Luxembourg Aid and Development.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

The work was supported by the Luxembourg Aid and Development Porticus Foundation.

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Data availability statement

The data that support the findings of this study are available upon reasonable request to the corresponding author.

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Appendices

Appendix A. Items listed under hypothesized categories

Safety & Adaptability:
Item 2: I feel safe at home
Item 3: It is easy for me to stick to my aims
Item 4: I feel safe at school
Item 6: It is easy for me to accomplish my goals
Item 7: When I am in trouble, I can think of a solution
Emotion regulation:
Item 1: I can control my temper
Item 5: When I feel scared, I can calm myself down
Item 8: When I feel angry, I can calm myself down
School support:
Item 9: Someone in the school staff asks me how I am doing
Item 11: Someone in the school staff supports me when I feel scared
Item 17: I can talk to someone in the school staff about my worries
Family support:
Item 10: I can talk to my parents about my worries
Item 12: When I feel scared, I can tell my parents
Item 18: My parents ask me how I am doing
Hope and well-being:
Item 15: I like being at school
Item 19: I am satisfied with my life
Item 16: I will live a meaningful life when I grow up
Item 20: I am sure I will graduate from school
Item 21: Things will turn out in the future
Academic functioning:
Item 13: I can easily concentrate when doing my schoolwork
Item 14: I am able to do my best in school
Study skills:
Item 23: I write down the homework to avoid forgetting it
Item 24: I do my homework without being asked or reminded by anyone
Item 25: I keep working on my schoolwork even when it is difficult
Item 22: I ask for help from my teacher when I do not understand the schoolwork
Item 26: I ask for help from my family when I face difficulty doing the homework
Sleeping quality:
Item 27: I have sleeping problems

Appendix B. Empirical categories and single items

Three categories

Academic functioning and study skills

Item 13: I can easily concentrate when doing my schoolwork
Item 14: I am able to do my best in school
Item 23: I write down the homework to avoid forgetting it
Item 24: I do my homework without being asked or reminded by anyone
Item 25: I keep working on my schoolwork even when it is difficult

Sense of safety and home support

Item 2: I feel safe at home
Item 10: I can talk to my parents about my worries
Item 12: When I feel scared, I can tell my parents
Item 18: My parents ask me how I am doing
Item 19: I am satisfied with my life

Sense of safety and school support

Item 4: I feel safe at school
Item 9: Someone in the school staff asks me how I am doing
Item 11: Someone in the school staff supports me when I feel scared
Item 15: I like being at school

Single items

Hope and self-efficacy

Item 3: It is easy for me to stick to my aims
Item 6: It is easy for me to accomplish my goals
Item 7: When I am in trouble, I can think of a solution
Item 16: I will live a meaningful life when I grow up
Item 20: I am sure I will graduate from school
Item 21: Things will turn out in the future

Emotion regulation

Item 1: I can control my temper
Item 5: When I feel scared, I can calm myself down
Item 8: When I feel angry, I can calm myself down

Help-seeking

Item 22: I ask for help from my teacher when I do not understand the schoolwork
Item 26: I ask for help from my family when I face difficulty doing the homework

Sleeping quality:

Item 27: I have sleeping problems

Appendix C. Student Learning in Emergency Checklist (SLEC-14)

Student Learning in Emergency Checklist (SLEC-14)

Contextualized version for use in Lebanon

Children living in war conditions, conflict or crisis often experience stressful conditions and multiple traumas which can severely challenge their development, mental health, and academic functioning. Feeling a sense of chaos, loss of concentration and reduced memory can make it difficult to keep up in the classroom, do homework, get good grades, and finally graduate. Under difficult conditions like war, it is not easy to design educational responses that meet local needs, are sensitive to local culture and context, build on international guidelines for best practice, and use research-based methods. The Student Learning in Emergency Checklist (SLEC-26) was developed as a tool for use in planning, designing, and evaluating school-based psychosocial interventions for education in emergencies. Items on the original SLEC-26 measure the situation before and after interventions, to establish indicators for students' academic functioning and school wellbeing (Forsberg et al., 2023).

The SLEC-14 version is contextualized and validated for use in Lebanon – primarily for monitoring and evaluation of the Better Learning Program (BLP). SLEC-14 measure: Academic functioning and study skills/Sense of safety and home support/Sense of safety and school support.

The SLEC-14 validation was a collaboration between the Center for Educational Research and Development (CERD); Reaching All Children with Education (RACE), a department within the Ministry of Education (MoE); the Norwegian Refugee Council (NRC); and UiT, the Arctic University of Norway.

Instructions
SLEC-14 is a self-report tool and can be administered in groups. A staff member or teacher reads the items aloud, and the students mark the boxes most applicable to them. The target group is all students living in Lebanon between the age of 6-16 years.

Scoring

All items are scored on a 1-4 Likert scale:

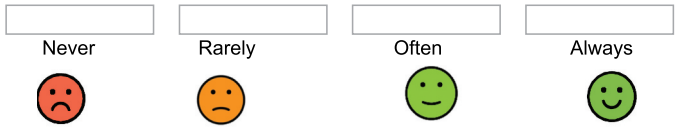
Never = 1 Rarely = 2 Often = 3 Always = 4

SLEC-14 measure three different categories:

1. Academic functioning and study skills= Items (7 + 8 + 12 + 13 + 14)
2. Sense of safety and home support= Items (1 + 4 + 6 + 10 + 11)
3. Sense of safety and school support= Items (2 + 3 + 5 + 9)

Thank you for being a part of this survey. When you participate in this survey, you help us learn more about the best way for teachers to support students at school. You do not put your name on the questionnaire – that is because your answers are anonymous: That means no one will know what you answered.

I will now read several questions for you, and you tick the box that has the most correct answer. For all questions, you must choose between four boxes (draw the scale on the blackboard) and go through the categories:



A. Please fill in the blanks below:

Country:		School Name:	
Location:		Students' identification code:	
Gender:	☐ M ☐ F	Grade:	
Age:			

B. Please answer the frequency of thefollowings:

Please select X how often you agree with the following statements:	1. Never	2. Rarely	3. Often	4. Always
1. I feel safe at home.	☐	☐	☐	☐
2. I feel safe at school.	☐	☐	☐	☐
3. School staff (teachers) asks me how I am doing.	☐	☐	☐	☐
4. I can talk to my parents about my worries.	☐	☐	☐	☐
5. School staff (teachers) support me when I feel scared.	☐	☐	☐	☐
6. When I feel scared, I can tell my parents.	☐	☐	☐	☐
7. I can easily concentrate when doing schoolwork.	☐	☐	☐	☐
8. I am able to do my best in school.	☐	☐	☐	☐
9. I like being at school.	☐	☐	☐	☐
10. My parents ask me how I am doing.	☐	☐	☐	☐
11. I am satisfied with my life.	☐	☐	☐	☐
12. I write down the homework to avoid forgetting it.	☐	☐	☐	☐
13. I do my homework without being asked or reminded by anyone.	☐	☐	☐	☐
14. I keep working on my schoolwork even when it is difficult.				