In Times of War, Adolescents Do Not Fall Silent: Teacher-Student Social Network

Communication in Wartime

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Abstract

Exposure to war is associated with psychological disturbances, but ongoing communication between adolescents and teachers may contribute to adolescents' resilience. This study examined the extent and nature of teacher-student communication on Social Network Sites (SNS) during the 2014 Israel-Gaza war. Israeli adolescents ($N = 208$, 13-18 *yrs*) completed information about SNS communication. A subset of these ($N = 145$) completed questionnaires on social rejection and distress sharing on SNS. More than a half (56%) of the respondents communicated with teachers via SNS. The main content category was 'emotional support'. Adolescents' perceived benefits from SNS communication with teachers were associated with distress sharing. Social rejection was negatively associated with emotional support and perceived benefits from SNS communication. We conclude that SNS communication between teachers and students may provide students with easy access to human connections and emotional support, which is likely to contribute to adolescents' resilience in times of war.

Keywords: war, social network sites, adolescents, teachers, emotional support, teacher-student communication.

Exposure to political violence is associated with a spectrum of psychological disturbances, including depression, somatic symptoms, and posttraumatic stress disorder (PTSD) (Canetti & Lindner, 2015; Joshi & O'Donnell, 2003; Shaw, 2003). These disturbances might continue or appear long after the violence has been terminated (Shaw, 2003; Werner, 2012). The reality of recurring wars and ongoing violence has been documented, especially in the Middle East, to have extensive negative effects on mental health: High levels of PTSD (17.8%) and depression (14.7%) were documented for example in South Lebanon one year after the month-long, second Israel-Lebanon war in 2006 (Farhood, Dimassi, & Strauss, 2013). Similar results (19%) were found in a large survey among 1001 Israelis adults who were exposed to a series of conflicts between Israeli Defense Forces and Palestinian militants, in which thousands of rockets were fired into Israel (Chipman, Palmieri, Canetti, Johnson, & Hobfoll, 2011). The prevalence of PTSD was even greater (more than 25%) among Palestinian adults in the West Bank and in Gaza (Canetti et al., 2010). The severity of distress symptoms is associated with the proximity of the life-threatening event. During the 2014 Israel-Gaza war, Israeli individuals who lived in regions with high rocket fire intensity showed higher levels of PTSD symptoms than those living in low rocket fire intensity regions (Besser, Zeigler-Hill, Weinberg, Pincus, & Neria, 2015). Children's' PTSD symptoms were also found to be related to proximity to stressful events. For example, proximity to the 1984 sniper attack on a Los Angeles elementary school predicted severity of students' PTSD symptoms (Pynoos et al., 1987).

Children and adolescents who are exposed to political violence are at risk to develop serious disorders. They are particularly vulnerable to war related stressors and its adverse consequences may influence their biological and psychological development (Davis & Siegel, 2000). Nevertheless, a number of protective factors may moderate the negative effects of war-related stressors and significantly contribute to adolescents' resilience. Among them are a strong relationship between children and their caregivers, an availability of additional caregivers, and social support of people in the community, especially teachers and peers, who are exposed to the same stressors and difficulties (Werner, 2012).

School-based trauma intervention programs, such as the Building Resilience Project for children exposed to war-related stress (Baum, 2005), often rely heavily on teacher involvement. Teachers fulfill several roles in such programs: First of all, because of their ongoing daily contact they may detect posttraumatic symptoms or behavioral change among their students and refer children to mental health services (Farmer, Burns, Phillips, Angold, & Costello, 2003). Moreover, teachers can offer actual support by suggesting coping strategies (e.g., distraction from traumatic events and related thoughts), by assisting with emotional processing, and by helping reinstitute familiar roles and routines (Prinstein, LaGreca, Vernberg, & Silverman, 1996). Finally, beyond specific therapeutic techniques, teachers may increase and strengthen human connections with their students in order to prevent later trauma and to help adolescents cope with the stressful reality of war. Resilience, a fundamental concept in the treatment of trauma, depends on the creation of rich and strong human connections (Cohen, 2008). The greater the strength of human relationships, and the greater the accessibility of these relationships in times of security threats, the better individuals cope with trauma and recover from it (Coates,

2003). By strengthening connections with their students, teachers may facilitate 'school connectedness', students' feelings of being accepted, included, and supported in the school environment (Goodenow, 1993). These feelings of belongingness and emotional bonding to teachers and peers are documented to have positive psychological outcomes, including improved adjustment following acts of terrorism (Moscardino, Scrimin, Capello, & Altoè, 2014).

In times of *continuous* war however, schools may close down for prolonged periods and students may be left without the psychosocial support that is typically provided by the school environment and by the teachers. In the absence of face-to-face interactions on school grounds, teachers may search for other forms of contact with their adolescent students, perhaps through online communication technologies. Online social network sites (SNS) seem particularly suited for such purposes. In the course of the last decade, SNS have become a central arena for adolescent social life (Brenner, 2012; Lenhart, Purcell, Smith, & Zickur, 2010; Valkenburg & Peter, 2007) and teachers have use SNS technologies to communicate and connect with their teenage students (Asterhan & Rosenberg, 2015; Geocartography Knowledge Group, 2011). Since a-synchronous, online communication is free from the shackles of time and space, it offers opportunities for teacher-student interaction even when schools are closed.

The potential advantages of social media communication during times of disaster and crisis have received increasing attention (Palen, Vieweg, Liu, & Hughes, 2009). For example, the use of a popular social network (i.e., Facebook) enabled the University of Canterbury in New Zealand to co-ordinate a response to an earthquake disaster with their over 22,000 students (Dabner, 2012). In another example, the use of Flickr, a photo-sharing website, facilitated 'citizen journalism' in six different disasters (e.g., the 2007 Virginia-Tech shooting), through which eyewitnesses could document and contribute live information. Research showed that this live

sharing of information in SNS aided in the preparation, response and recovery from these disasters (Liu, Palen, Sutton, Hughes, & Vieweg, 2008).

To the best our knowledge, studies on SNS communication in times of crises have thus far mainly described its function as a tool for easy information access and sharing, rather than for lending emotional support. Moreover, the current literature does not address the question whether adolescents may receive emotional support from their teachers via SNS communication, especially in the face of a continuous war. By using SNSs, teachers may offer emotional support and provide human connections that improve teenage students' ability to cope with war-related stressors.

The present study

Our overall goal is to examine the extent and nature of teacher-student SNS communication during a continuous period of warfare in an afflicted area. In the present study, we focus on this phenomenon form the adolescent student's perspective (for a complementary study on the teachers' perspective, see Rosenberg, _____). The research was conducted in the midst of the 2014 Israel-Gaza war (also referred to as Operation Protective Edge), which took place from July 8 to August 26, 2014. This major escalation of the Israeli-Palestinian conflict claimed the lives of more than 2,200 people, the majority of which were Gazans, and affected the mental health of both Gazan and Israeli citizens. In the present study, we focus on Israeli adolescents (13-18 *yrs*) who live within 45 kilometers from the Israel-Gaza border (e.g., the cities of Sderot, Ashkelon, or Ashdod). Among Israeli civilians, this area was exposed to and affected by war-related events most. The overall majority of the 4,500 rockets and mortars that were fired from the Gaza strip during this period landed in this area. Whenever a siren warning was heard, civilians in this area had 15-90 *sec* to find shelter,

depending on the exact distance from the Gaza border. The two SNSs we focus on are Facebook

and WhatsApp[1], which are the most popular SNS at the time and the location of the study.

Our research goals in this study are two-fold: First, we aim to describe the phenomenon of

teacher-student SNS communication during times of war, by focusing on the extent, the content

and students' satisfaction from this communication. Our first question was whether this type of

communication exists, and what is its scope. On the one hand, it has been reported that

adolescents perceive SNSs such as Facebook as "their" territory, where adults are not

particularly welcomed (Hershkovitz & Forkosh-Baruch, 2013). Moreover, since the 2014 Israel-

Gaza war occurred during summer recess in Israeli schools, teacher-student contact may *a*

fortiori be more sporadic, even in wartime. Finally, teachers may be pre-occupied with taking

care of their own families during stressful periods such as these. On the other hand, and as

described above, SNS offer alternative channels of communication to cope during stressful

events.

Moreover, teachers may feel urged to go beyond their institutionalized roles and expand their

personal relationships with their students beyond the classroom. A recent multi-method study on

Israeli teacher SNS communication with their teenage students found that many teachers use

SNS for organizational and instructional purposes, but also for more psycho-pedagogical

purposes (Asterhan & Rosenberg, 2015). Teachers patrol the digital sphere to *prevent* negative

social phenomena such as online bullying, *reach out* to their students in need after school hours,

and review their students SNS activity for *early detection* of personal distress (Asterhan &

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[1] WhatsApp is a free internet-based mobile messaging application. WhatsApp enable its users to "create groups, send unlimited images, video and audio media messages and stay in touch with family and friends" (www.whatsapp.com).

Rosenberg, 2015). It is then expected that teachers do reach out to their teenage students through SNS during the war.

The *second research question* pertains to the content of such teacher-student SNS communication. Whether intensive or sporadic, what will be the main purpose for SNS contact in times of war? Will the communication address school-related or war-related issues? Would teachers use SNS communication to offer emotional support to their students? Our *third question* addresses how and whether high school students appreciate teacher-student SNS communication in times of war? Do they feel that it helps them cope with the stressful event, or do they perhaps find it intrusive?

Our second aim is to investigate whether the extent and the nature of teacher-student SNS communication in wartime is associated with individual differences between adolescents. Although the overall majority of adolescents are frequent SNS users, they differ in their attitudes and motives for using them (Ellison, Steinfield, & Lampe, 2007; Jenkins-Guarnieri, Wright, & Johnson, 2013). Adolescents use SNSs for a variety of reasons, such as meeting new people, leisure and social activism (Yang & Brown, 2013), but also for emotional sharing (Hew & Cheung, 2012; Manago, Taylor, & Greenfield, 2012; Moreno et al., 2011). The latter is particularly relevant to communication about war-related stress. It is expected that individual tendency to share distress on SNS will be associated with three aspects of teacher-student SNS communication during the war: frequency of communication, existence of emotional support as a specific type of communication content, and perceived benefits of SNS communication in general (*hypothesis 1*).

Finally, we explore whether these three aspects of teacher-student SNS communication depend on adolescent students' social status (i.e. social rejection). Based on research and theory

from research on online relationships, two competing hypotheses offer opposite predictions: According to the *rich-get-richer* hypothesis, individuals with superior social skills are more likely to benefit from online communication, because their offline social skills facilitate their online relationships and they manage to attract social support (Kraut et al., 2002). In direct contradiction, the *social compensation* hypothesis predicts that individuals with underdeveloped social skills will particularly benefit from online communication formats, since mediated communication formats are perceived as less threatening (e.g., Sivashanker, 2013). Since both theoretical hypotheses have received some empirical support (e.g., Baker & Oswald, 2010; Lee, 2009), a two-tailed hypothesis is proposed concerning the relationship between social status and teacher-student SNS communication during times of war (*hypothesis 2*).

Method

Participants and Procedure

The research was conducted during the 7th week into the 2014 Israel-Gaza war (August, 2014). Participants were 208 Israeli adolescents who reside within 45 *km* from the Israel-Gaza border. They were recruited from the largest national panel of adolescents in Israel (with over 100,000 active adolescent members). The research center managing this panel is subjected to state privacy law and ethic norms. When registering to the online panel, users provide basic biographical data (e.g., age, gender, residence, mother tongue, religious affiliation). This biographical information is used for selection procedures (e.g., mother tongue) as well as to build representative samples for surveys. Registration to the panel requires reading and signing a consent form, as well as a parental consent forms for minors.

Invitations to participate in the current study were sent via e-mail to all Hebrew-speaking panel members who were between 15-18 *yrs* old and resided within 45 *km* from the Israel-Gaza border. The invitation did not reveal the research topic. Participation was on a first-come, first-

serve basis. Recruitment was stopped once a sample of 200 adolescent participants with active

SNS accounts was obtained, while safeguarding a representative breakdown of gender, age, and

the different religious sectors that is representative of the general population in that area (42.3%

secular, 23.1% traditional[2], 28.8% religious, 2.5% other). Participants were first asked whether

they have a social media account on Facebook and/or WhatsApp. Seven individuals did not have

social media accounts and were not eligible to continue participation. The remaining 201

adolescents (119 female) aged between 13-18 *yrs* old (*M* = 15.5, *SD* = 1.4).

In the first stage of the study, participants completed an online survey regarding their social

media communication with their teachers during the war. In the second stage of the study, which

took place four days later, participants received an invitation to complete two more

questionnaires. From the original sample, 145 participants responded to the invitation and

completed two additional questionnaires assessing the extent to which they (a) share distress on

SNS, and (b) experience feelings of social rejection. Finally, participants were rewarded for their

participation with coupon vouchers for popular stores.

Scales and Instruments

SNS communication during the war. The main survey regarding teacher-student SNS

communication was developed by the authors for the purpose of this study. Appendix 1 presents

the full questionnaire. Unless written otherwise, the questions were rated on a Likert scale from 1

(never/not at all) to 5 (very much/a great deal). Participants were first asked two questions about

their own, general usage of SNSs, namely to what extent they use SNSs (Facebook or

WhatsApp) under normal circumstance, and whether they now (during the war) use social

network sites more or less frequently than under normal circumstances. The next set of items

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[2] "Traditional" is an Israeli term to describe people who observe basic religious practices but do not perceive themselves as religious or as secular.

addressed the frequency and content of student-teacher SNS communication, separately for

Facebook and for WhatsApp: (1) *To what extent do you communicate with a teacher on*

Facebook/WhatsApp during the war; and (2) *In comparison with normal times, do you have*

more or less Facebook/WhatsApp communication with a teacher during the war? The content of

the communication included four topical options: (a) school-related content (e.g., tests and

classes), (b) war-related content (e.g., where did the missile hit or how should the state react), (c)

disciplinary actions and norms content (e.g., toning down violent student expressions or hateful

comments), and (d) emotional support (e.g., discussion of fears, feelings and distress). The

frequency of each topical option was rated separately for Facebook and for WhatsApp.

The *third* set of items aimed to assess the perceived benefits of teacher-student SNS

communication. Respondents were asked two questions, addressing the extent in which SNS

communication with teachers during the war actually helped them, and the extent to which they

(the students) initiated the online communications (1 = not at all, 2 = few times, and 3 = often).

Distress Sharing on SNS. A newly developed scale (_____) was

distributed to assess to what extent adolescents Share distress On Social network sites (the *SOS-*

scale). The scale consists of 6 items, rated from 1 (strongly disagree) to 5 (strongly agree) and

their internal consistency is high ($\alpha = .93$). The scale comprises 2 sub-factors: 'share-distress' and

'share-help'. 'Share-distress' measures the act of sharing personal feelings and distress online

(e.g., "I use social network sites to share my personal difficulties"). 'Share-help' measures the

wish to receive help and support through the act of sharing (e.g., "I use social network sites to

receive consultation from others, regarding my problems"). A confirmatory factor analysis using

structural equation modeling (SEM), which was applied to a database of 413 adolescents

respondents (_____) and supported the two-factorial structure ($\chi2$

= 25.18, $P < .001$; RMSEA=.079; NFI=.989; CFI=.992, TLI=.983). The scale demonstrated good convergent validity with the amount of time spent on social media ($r = .308$, $p < .001$, $N = 413$) as well as with positive attitudes towards social media (Jenkins-Guarnieri et al., 2013) ($r = .52$, $p < .001$, $N = 413$). In the current study, internal consistency was high for the full scale ($\alpha = .94$) and for the two subscales (.89 and .93 for share-distress and share-help, respectively).

Social Rejection. Social rejection was measured with four items from the Child Behavior Checklist (CBCL; Achenbach, 1991). The four items assess to what extent the adolescent (1) experiences feelings of loneliness, (2) does not get along with peers, (3) thinks that others want to hurt him/her, and (4) feels that he/she is not loved. The CBCL is widely used for clinical research and it is a valid and reliable measure of behavioral and emotional functioning. The 4 items demonstrated high internal consistency in the current sample ($\alpha = .89$).

Results

Table 1 presents adolescents' report on general usage of social network sites, both in normal times as well as during the war. Almost all participants ($N = 201$, 96.6% of the 208 adolescents that were initially recruited) reported that they own SNS accounts. The seven participants that did not have SNS accounts were excluded from further analyses. Ninety-six percent (96%) of the valid sample reported that they use these SNS on a daily basis. Interestingly, adolescents' usage of SNS increased during the war: The majority of participants (71.6%) reported that they used social network sites more often (36.8% little more often, 34.8% much more often) than in normal circumstances.

The scope, content, and students' perceptions of teacher-student SNS communication in the war

Communication via Facebook. Thirty-five adolescents (17.4% of the whole sample) reported that during the war they communicated with their teachers on Facebook ($M = 1.3$, $SD = .74$). A

one-sample Wilcoxon signed-rank test indicated that this frequency was significantly different from no communication at all, $Z = 13.25$, $p < .001$. Out of these, 34.3% reported that they used Facebook more often than in normal times, 42.9% reported that the frequencies were approximately the same, and 22.8% reported that teacher-student Facebook communication was less frequent during the war. Teacher-student Facebook communication was much less frequent than its WhatsApp counterpart and, therefore, the total number of "Facebook communicators" who completed the second part of the research ($N = 30$) limits further statistical analyses. We then focus on the WhatsApp user data for the remainder of the analyses.

Communication via WhatsApp. A hundred and eleven adolescents (55.2%) reported that during the war they communicated with their teachers via WhatsApp ($M = 1.8$, $SD = .99$). A one-sample Wilcoxon signed-rank test indicated that this frequency was significantly different from no communication at all, $Z = 12.52$, $p < .001$. Of these, 23.4% reported that this was more frequent than in normal times, 36% reported that the amount of communication was about the same, and 39.6% participants less WhatsApp communication with teachers during the war. Taken together, a total of 113 participants (56.2%) communicated with teachers on Facebook or WhatsApp. These results about the prevalence and frequency of teacher-student SNS communication in wartime indicate that our *first question* tilts towards communication. Despite the fact that the war took place during summer recess, teachers and students did communicate, and in significant numbers.

Content of communication. Figure 1 presents participants' ratings of the topic categories, which were discussed on WhatsApp: (1) School-related content; (2) war-related content; (3) disciplinary actions and norms; and (4) emotional support. In order to examine which topic was most dominant, a repeated measures analysis of variance, with 'content' as a within-subjects

factor, was conducted. Results indicated a significant main effect of content, $F(3,108) = 25.49$, p

$< .001$, Partial $\eta2 = .19$. Post-hoc tests using Bonferroni corrections ($p < 0.5 / 6$) indicated that

school-related content and norms and disciplinary actions were equally frequent ($p = 1.0$). War-

related content was significantly more frequent than both contents ($p = .016$ and $p = .053$,

respectively). Most importantly, frequency of emotional support was rated significantly higher

than all the other three content categories ($p < .001$, for each comparison). To answer our *second*

question, we conclude that during the war, the most dominant content category of teacher-

student WhatsApp communication was emotional support.

    Perceived benefits of teacher-student SNS communication. Regarding our *third question*, the

majority of the participants (76.6%) who had WhatsApp communication with their teachers

during the war reported that this was helpful (23.4% - not helpful, 14.4% - little helpful, 32.4% -

moderately helpful, 21.6% - very helpful, and 8.1% - extremely helpful). Approximately a third

of these (32.4%) reported that they initiated the SNS communication (27% few times, 5.4%

often) by approaching a teacher in order to receive help or support.

Individual differences in teacher-student SNS communication during the war

    Our *first hypothesis* concerned the relations between the tendency to share distress on social

network sites (SOS-scale) and the three aspects of teacher-student communication (frequency,

content of emotional support, and the perceived benefits of communication). First, a *t*-test among

participants who continued to the second stage of the research ($N = 145$) was conducted to

compare the levels of distress sharing on SNS between adolescent respondents: those who

communicated with their teachers via WhatsApp during the war ($N=84$) and those who did not

($N=61$). Teenagers who communicated with their teachers had higher SOS scores ($M = 12.7$, *SD*

= 6.4) than individuals who did not communicate with their teachers ($M = 10.3$, $SD = 6.7$), $t(143)$

$= -2.14$, $p = .034$.

Second, to examine the associations between SOS scores and the three aspects of teacher-student communication non-parametric Spearman correlations were calculated. Distress sharing on SNS was not correlated with the frequency of communication ($r_s = .07$, $p = .52$, $N = 84$) or with the specific content of emotional support ($r_s = .03$, $p = .75$, $N = 84$). Perceived benefits of social media communication with teachers significantly correlated with SOS scores ($r_s = .24$, $p = .03$, $N = 84$). A further subdivision of the SOS-scale into its two subscales showed that the correlation with the sub-scale *share-distress* was significant ($r_s = .25$, $p = .02$), whereas the correlation with the sub-scale *share-help* was not significant ($r_s = .18$, $p = .10$). The *first hypothesis* was then only partially supported.

The *second hypothesis* addressed the link between teenagers' social status and the three aspects of teacher-student SNS communication. Levels of social rejection did not differ between participants who communicated with their teachers ($M = 6.86$, $SD = 3.59$, $N = 84$) and those who did not ($M = 6.90$, $SD = 4.21$, $N = 61$), $t(143) = 0.68$, $p = .94$. Social rejection was not related to frequency of communication, ($r_s = .13$, $p = .25$, $N = 84$). A negative correlation was found between social rejection and the content category of 'emotional support' and approached significance ($r_s = -.21$, $p = .056$, $N = 84$). This suggests that less socially competent students experienced less emotional support through teacher-student SNS contact than their more socially competent peers.

Social rejection was not significantly related to perceived benefits of SNS communication with teachers ($r_s = .034$, $p = .76$, $N = 84$). However, since both the 'rich-get-richer' as well as the 'social compensation' hypotheses emphasize the connection between benefits from online

communication and social status, we examined whether this link between social rejection and perceived benefits depends on the tendency to actually share distress on SNSs. We divided the sample into two groups: individuals with high SOS scores and individual with low SOS scores. The SOS median score of 12 served as the cut point to create two groups of approximately equal size. Social rejection and perceived benefits of teacher-student SNS communication was negatively associated only among individuals who were not inclined to share their distress online ($r_s = .-34$, $p = .016$, $N = 49$). A reversed, but not significant relationship was found among individuals that tend to share distress on SNS ($r_s = .25$, $p = .15$, $N = 35$). This finding suggests that distress sharing on SNS may moderate the relationship between social rejection and perceived benefits from SNS communication with teachers.

Discussion

We examined social network communication between adolescents and their teachers during the 2014 Israel-Gaza war. Data was collected from Israeli adolescents who live within 45 kilometers from the Israel-Gaza border, an area that was subjected to daily rocket fire and continuous war-related stressors. Corresponding with the literature on adolescent SNS usage, participants in the current sample were found to be frequent users of SNS. During the war, a time of major stress, this extensive usage even increased further.

The first goal of the study was to examine the frequency, the content, and the adolescents' views of teachers-students SNS communication during the war. Based on student reports, we found that (a) more than half of the adolescent participants who live in the war-afflicted areas reported to communicate with their teachers via SNSs during the war (mainly through WhatsApp); and that (b) the main purpose of this communication was to lend and receive emotional support. Moreover, the majority of participating adolescents expressed their

appreciation of this communication and believed it to be helpful. The main results from the first stage of the research are then cause for careful optimism: The results imply that in times of war, adolescents are using SNSs more than in normal times, teachers acknowledge their psychosocial role in helping students cope with war-related stressors, and students appreciate and value this communication. Thus, even when formal school intervention programs are not available or feasible, teachers turn to ubiquitous communication formats, such as SNS, to reach out to their students and help them cope with prolonged exposure to trauma.

The results contribute to the emerging field of social media usage in times of crisis (e.g., Dabner, 2012; Liu et al., 2008; Palen et al., 2009), as well as to the research on teacher-student SNS communication, by focusing on adolescents at war and pointing to teachers' crucial role of lending emotional support their students. As recently shown by Asterhan and Rosenberg (2015), teacher-student SNS communication during the school year serves mainly instructional, pedagogical and social-relational goals. Student-teacher communication would then be expected to diminish during summer recess in time of peace. Interestingly, the findings from the current study indicate that teacher-student SNS communication may serve another unique and defined purpose in times of crises: To lend emotional support to adolescents. Possible implications of these findings may include the creation of specialized training program for teachers to support them in these efforts in times of crisis.

Beyond the finding that much of teacher-student communication content was directly aimed at providing emotional support, it is also possible that mere existence of teacher –student contact during war times provided students with easily accessible human connections (Coates, 2003; Cohen, 2008), which in and by itself could moderate the negative effects of the war. The availability of strong relationships between adolescents and their teachers is known to contribute

to adolescents' resilience (Werner, 2012). This possibility is further supported by findings from a complementary qualitative study, in which we analyzed teacher interviews and students' open descriptions of student-teacher communication in war times (_____). The results from that study showed, among others, students frequently mentioned the subjective experiences of teachers being present, available, and personally interested in their students, even when they did not directly discuss the war or war-related topics. Teachers, from their point of view, emphasized that the state of emergency and the fact that their students were bound to their homes required them to search for creative and "non-conventional" methods of communication. The choice to use social network sites was inevitable because of the dominance of SNS in their students' life, along with their relative ease of use and availability, for communication with both individual students as well as larger groups.

In addition to the mere one-on-one contact with teachers, it is also possible online social networking in classroom or grade-level SNS groups may facilitate feelings of school connectedness, even when school is out. Feelings of connectedness and emotional bonding between school members, is known to serve as protective factors and moderate the impact of war-related adversities (Moscardino et al., 2014), especially when group members are exposed to the same stressors and difficulties,. Future studies should directly explore *how* teacher-student SNS communication during times of crises and political violence may improve resilience. We already mentioned three possibilities: Through the existence of student-teacher contact in and by itself, through the content of that communication, and through strengthening feelings of connectedness to a larger group and community.

The second goal of the study was to investigate the relation between interpersonal differences (distress sharing on SNS and feelings of social rejection) and three aspects of teacher-student SNS communication in times of war: the frequency of communication, the specific content of emotional support, and the perceived benefits of this communication. We found that individuals who communicated with their teachers had higher SOS-scores than individuals who did not communicate with their teachers. Among students who do communicate with teachers, individual differences in distress sharing on SNS distress were not associated with the frequency or the content of teacher-student SNS communication. A possible explanation for this might be that the frequency and content of teacher-student communication are mostly determined by the teachers, rather than by the students. In contrast, positive attitudes towards SNS communication with teachers, which are the student point of view, were associated with SOS scores. In partial support of our *first hypothesis*, it is likely that emotional SNS communication between teachers and students is more suitable to adolescents who also perceive the social media as a medium for emotional sharing.

Interesting results emerged with regard to our *second hypothesis* that addressed adolescents' feelings of social rejection. Social rejection was negatively associated with emotional support in teacher-student SNS communication. Moreover, among individuals who are less inclined to share their personal distress on SNS, social rejection and perceived benefits of student-teacher SNS communication were also negatively associated. These negative correlations are particularly important because they suggest that adolescents who are less socially competent might tend to underestimate and perhaps even 'miss out on' their teachers' efforts to provide them emotional support. These results contribute to the theoretical dispute between the *rich-get-richer* and the *social compensation* hypotheses. The *rich-get-richer* hypothesis generally states that online

relationships reflect offline relationships. From this point of view, individuals with less

developed social skills are less likely to attract social support and to benefit from online

communication, compared with individuals who have superior social skills. Thus, even if,

according to the social compensation hypothesis, socially challenged adolescents are trying to

compensate for their underdeveloped social skills with increased usage of social media, their

efforts, as manifested in this study, do not seem to bear fruits. Their social difficulties continue

and extend into their online relationships.

The present study has several limitations. First, the focus on adolescents' reports on teacher-

student SNS communication limits our ability to derive conclusions about actual student-teacher

communication. Secondly, the findings may be limited to adolescents who have daily Internet

access. However, the number of Hebrew speaking adolescents in Israel that are not connected to

SNS is expected to be marginally low: According to updated surveys, 75% (Rosenberg, 2014) to

97% (Aharoni, 2015) of Israeli adolescents are connected to the Internet through personal

Smartphones[3]. Third, in the present study we specifically focused on teachers. It is reasonable

to assume that other adults' caregivers (e.g., family members, counselors, youth coaches) may

have sustained SNS communication with adolescents during the war. Future studies may explore

these types of interactions and the role they play in adolescents' resilience. Finally, even though

we were able to map a unique phenomenon, the rarity of the setting (i.e., research that is

conducted during a war) and the novelty of the research topic (teacher-student SNS

communication), also limits our ability to generalize the findings. Further research is required to

replicate and extend the current research findings, preferably in times of prolonged exposure to

trauma. Despite these limitations, the findings from the current study contribute to research and

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[3] Differences between surveys may derive from the inclusive/exclusive of conservative communities such as Ultra-Orthodox groups.

theory about the quality of online relationships (Kraut et al., 1998; Mesch, 2003; Valkenburg & Peter, 2007), as well as to research on the role of teachers in times of war and other crises.

In summary, political violence and especially wars bring agony, uncertainties, and distress. In difficult times such as these, adolescents are using social media even more often than usual, not only to stay informed about ongoing developments of the war, but also to receive (and give) emotional support. Even though teacher-student SNS communication is not without pitfalls (Asterhan & Rosenberg, 2015), its advantages in times of war are recognized by students and are illustrated during the 2014 Israel-Gaza war. We conclude that, in times of war, teacher-student SNS communication may surrogate the formal structures traditionally provided in schools to help students cope with trauma, provide students with easily accessible human connections and significantly contribute to adolescents' resilience.

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Table 1

Adolescents' usage of social media

Popularity of social media among adolescents			
only Facebook	only WhatsApp	Facebook and WhatsApp	**at least one social network**
6.3%	6.7%	83.7%	**96.6%**

Adolescents usage of social media in normal times					
less than once a day	once a day	every few hours	several times in 1 hour	once every few minutes	**at least once a day 96.1%**
3.9%	2%	25.9%	45.8%	22.4%	

Adolescents usage of social media during the war (in compare to normal times)					
much less	little less	the same	little more	much more	**at least a little more 71.6%**
0.5%	4.5%	23.4%	36.8%	34.8%	

Figure 1. Content of communication on WhatsApp during the war
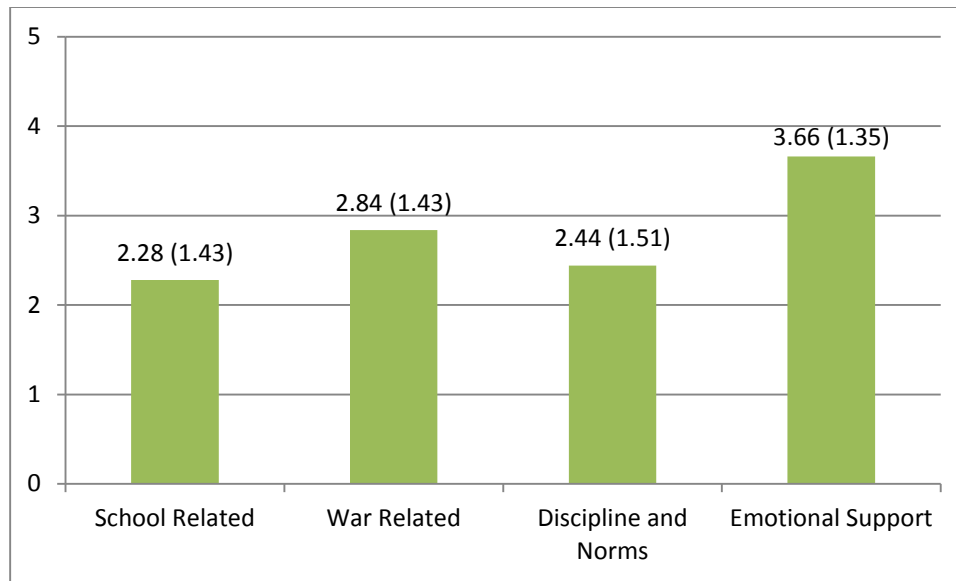
Note. The numbers above the columns represent means and standard deviations (*SD*) of participants' ratings for each topic.

Appendix 1

Questionnaire - SNS communication during the war

	1	2	3	4	5
General usage of social media					
To what extent do you use SNSs (Facebook or WhatsApp) in regular times	less than once a day	once a day	every few hours	several times in 1 hour	once every few minutes
Do you use SNSs during the war, more or less than in normal times	much less	a little less	the same	a little more	much more
Frequency[4]					
To what extent do you communicate with a teacher on Facebook/WhatsApp during the war	not at all	once in few days	once a day	once in few hours	once an hour (or more)
In comparison with normal times, do you have more or less Facebook/WhatsApp communication with a teacher during the war	much less	a little less	the same	a little more	much more
Content - To what extent did you communicate with a teacher about:					
school related issues (e.g., tests and classes)	never	little	somewhat	much	a great deal
War-related content (e.g., where did the missile hit or how should the state react)	never	little	somewhat	much	a great deal
Disciplinary actions and norms (e.g., toning down violent student expressions or hateful comments)	never	little	somewhat	much	a great deal
Emotional support (e.g., discussion of fears, feelings and distress).	never	little	somewhat	much	a great deal
Perceived benefits					
To what extent does SNS communication with teachers during the war actually helped you	not at all	little	somewhat	much	a great deal
To what extent were you the one to approach the teacher and to initiate the online conversation	never	Few times	often		

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[4] The set of items that addressed the frequency and content of student-teacher SNS communication were presented twice, separately for Facebook and for WhatsApp.