

DETERMINATION OF THE RISK FACTORS ASSOCIATED WITH PROBLEMATIC SOCIAL MEDIA USE AMONG ADOLESCENTS OF ALBANIAN AND MACEDONIAN DESCENT IN NORTH MACEDONIA

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Abstract

Problematic social media use turns out to have effects on many dimensions of teenagers' lives, including emotional well-being, social interactions, and interpersonal relationships. The focus of research is oriented directed towards identification, in addition to its effects, the predictive factors associated with problematic use of social media. The purpose of this study is to predict the effect of family support, school support and school well-being on the problematic social media use among adolescents in North Macedonia. The study included 5144 adolescents 11, 13 and 15 years old, of which 48.4% are boys and 51.6% are girls. Considering the structure of the population in the country, 66.6% are young Macedonians and 33.4% Albanians. The data presented are part of the cross-sectional study "Health and Behaviour of School-aged Children", collected during 2022.

The results of the research showed that family support is a predictor of problematic social media use for Macedonian and Albanian girls and boys, whereas teacher support did not emerge as a determinant of problematic social media use. Prediction role of classmates' support and school pressure are also discussed.

Keywords: problematic social media use, adolescents, family support, school support.

Introduction

In the period when technology is developing rapidly, the use of social media is an inevitable reality of adolescents and an inseparable part of their daily life. Social media such as Snapchat, WhatsApp, Instagram and Tik Tok are the primary form of communication for young people. Undoubtedly, the time spent with social media reflects on life and health, but also on the relationship of young people with others, which means that the effect of social media on all spheres of teenagers' lives is inevitable. This has led studies to focus on the effects of social media in the lives of adolescents, in almost all domains, such as mental health, interpersonal relationships, but also life satisfaction. The findings speak of positive and negative effects of the use of social media by adolescents. The positive effects on family relationships include family functioning as a whole but also the parent-child relationship. Parents use social media for parenting purposes (Haslam, Tee & Baker, 2017), but also as a tool to facilitate parental involvement in the adolescent's life, whether by using media together, talking about it, or integrating social media in key family processes (Coyne et al. 2014). Interaction through social media increases the satisfaction of family ties (Singh & Tyagi, 2023), promotes good family functioning and contributes to open communication between family members (Procentese, Gati & Di Napoli, 2019). Coyne et al. (2014) add that positive media use is positively related to

family functioning adding that families that successfully integrate media into key family experiences may function better than families which use media negatively or as punishments. Research, also, shows concern about the impact of social media on the quality of family ties and the strength of the connection between family members. In addition to the positive effects, it should be emphasized that the research also provides data regarding the consequences of the use of social media in family relationships, the quality of family ties and the connection between family members. The increase in the use of social media is associated with an increase in family conflicts but also a significant decrease in direct, face-to-face interaction between family members (Singh & Tyagi, 2023). Also, the use of social media has been found to be related to depression (Bozzola et al. 2022) and anxiety (Drouin et al. 2020; Rutter et al. 2021) even more for girls than for boys (Tirobaschi et al. 2023). Adolescent problematic users of social media have reported more health complaints, respectively psychosomatic and psychological symptoms such as irritation, low mood (Marino et al. 2020) as well as internalizing problems (Bexheti et al. 2024). In this regard, the family has the role of supporting their children, which implies the use of social media and therefore the well-being and functioning of adolescents.

Several studies have begun to focus on the problematic social media use as a potential addictive behaviour of young people in the use of social networks. The data show problematic social media use by adolescents in a range of 3.22%-14.17% in representative samples of countries (Boer et al., 2020) and there is an inconsistency by gender. In some research, gender differences are found for problematic social media use in favor of girls (Banyai et al. 2017; Marino et al., 2020, Rutter et al., 2021), others in favor of boys (Song, 2021) while in others there are no gender differences (Schivinski et al. 2020).

The problematic social media use implies having negative effects on adolescents as well as, on wellbeing, family support (Boer et al., 2020), declaration of somatic and psychological symptoms (Marino et al., 2020), low self-confidence (Banyai et al. al, 2017) internalizing problems (Bexheti et al., 2024), depressive symptoms (Saigh, et al. 2022), school performance (Eijnden et al., 2018) and less physical activity (Morningstar, et al, 2023). Explaining the connection between the social media use and symptoms of depression, Shensa, et al. (2017) suggests to the fact that the way we use social media is more important than how often we use it. In this regard, problematic social media use has stronger effects in different domains in adolescents than intensive use of social media (Boer et al., 2020). Considering the effect of the problematic social media use by adolescents, researches are oriented to identify and understand more its predictors, which turn out some of them to be the family (Guerts, et al., 2023), peers, school support (Duin et al, 2021), desires for being liked (Savci, Tekin & Elhai, 2020).

The family is one of the factors that have been treated in relation to the problematic social media use, such as family functioning (Shi et al., 2017), family support (Boer et al. 2020), time spent with children (Leijse et al., 2023) including family meals (Jagtiani et al. 2019) and conflicts between parents (Wang et al., 2021). The family but also the other groups that we belong satisfy the psychological need for belonging and connectedness with others. We try to achieve it in different forms. Belonging and social connectivity have been shown to predict problematic social media use (Kircaburun et al., 2019). In adolescence, an important environment of belonging and support in the school context are classmates and teachers. However, the relationship between different social relationships and different dimensions of well-being at school are gender-specific (Markus, Rieser & Schwab, 2022). Kim and Lim (2014) emphasize that students when they perceive connection with teachers and peer attachment express even more self-control and ability to control and manage the situations they are in (according to Song, 2021). Support from teachers is associated with less problematic student behaviour (Bussemakers & Denessen, 2023) and good relationships with peers and teachers reduce the level of smartphone addiction in high school students, (Song, 2021). But the findings of other authors are contrary to these data. Duin et al. (2021) in the final model as a predictor of

problematic social media use find support from parents and peer support but not teacher support. In addition to being supported by classmates and teachers, the demands and experiences of school influence the habits and behaviour of adolescents. Salmela Aro et al. (2017) found a reciprocal prediction of school burnout and internet use.

Starting from the studies so far, we notice that the school factor in research related to problematic social media use is not so included, and so far inconsistent and different data are given for gender, but also cultural affiliation. For this reason, we have taken into account the fact that the research was carried out with teenagers in different countries, belonging to certain cultures, we decided the purpose of this study to: predict the effects of family and school support, such as the support of teachers, classmates, school satisfaction and school pressure on the problematic social media use among teenagers, taking into consideration their gender and ethnic/cultural affiliation (of Albanian and Macedonian adolescent).

Methods

Sampling

This study used data from the Health Behaviour in School-aged Children (HBSC) North Macedonia Study, survey 2022. HBSC is collaborative cross-national survey that is conducted every four years in more than 50 countries. The representative sample of young people aged 11, 13 and 15 includes a total of 5144 teenagers. The sample was selected in a systematic random manner, where the units of analysis were primary and secondary schools in the country. During the selection of the subjects, the stratification was made according to the languages in which the lesson takes place - the Albanian language and the Macedonian language. According to the language of instruction, 66.6% are young people who learn in the Macedonian language and 33.4% who learn in the Albanian language. Also, 48.4% of the adolescents are boys and 51.6% are girls.

The study does not include students from private schools, special needs schools and schools for young people in detention.

Measures

Social Media Disorder Scale (Eijnden et al., 2016) was used to measure problematic social media use. The scale includes 9 items that were related to addiction like symptoms e.g. preoccupation, tolerance, withdrawal, persistence, escape, problems, deception, displacement and conflict. Participants have to think in the last year e.g., “have you regularly found that you can’t think of anything else but the moment that you will be able to use social media again?” and answer “yes” or “no” to each item. In order to be classified as problematic users, participant had to answer “yes” six or more items. The internal consistency of the scale in this sample was adequate (Cronbach’s alpha = .76)

Family support was measured using Multidimensional Scale of Perceived Social Support (Zimet et al., 1988). Four items which assess family support, e.g., “whether they can talk about problems with their family”, with responses ranging from 1 “very strongly disagree” to 7 “very strongly agree”. The mean score was calculated such that high values indicated high family support. The internal consistency of the scale in this sample was very good (Cronbach’s alpha = .90)

Support in the school context is measured by the Teacher and classmate support scale (Torsheim et al., 2000). Teacher support contains three questions related to the perception of support that students receive from teachers. For example, "I feel that my teachers accept me as I am." There were five response options ranging from strongly agree to strongly disagree. By calculating the

average of the answers in the three items, was obtained scale of teacher support ranging from 1 "low support" to 5 "high support" The internal consistency of the scale was good (Cronbach's alpha = .85)

Three other items measure "the perceived satisfaction with, and the helpfulness and availability of support" by classmates (Torsheim et al., 2000), e.g. "Most of the students in my class(es) are kind and helpful". Adolescents chose one of five response options ranging from strongly agree to strongly disagree. By calculating the average of the responses to the three items, was obtained scale of classmates' support ranging from 1 "low support" to 5 "high support" The internal consistency of the scale in this sample was adequate (Cronbach's alpha = .78).

School satisfaction is measured by a single item that aims to measure students' emotional connectedness to school in terms of liking school. Respondents answered from 1 "Like it a lot" to 4 "Not at all" (Inchley et al., 2016).

The schoolwork pressure, single item, is designed to measure the global feeling of being pressured by the demands of schoolwork. Young people were asked how pressured they feel by the schoolwork they have to do. Response options ranged from 1 "Not at all" to 4 "A lot" (Inchley et al., 2016).

Both items, school satisfaction and school pressure, separately, were created on a dichotomous scale by options 1 and 2 equaling zero; options 3 and 4 equal one. For school satisfaction and schoolwork pressure, because they are measured by one item, Internal consistency was not calculated. However, these items have been used for a long time as part of the HBSC study (Klinger et al, 2015; Inchley et al. 2016).

Results

Descriptive analysis

Tables 1 and 2 present the descriptive data and the correlation of the variables included in the study. Macedonian and Albanian youth do not differ in the support they receive from their family. The difference exists between Macedonian boys and girls, where boys ($M = 6.11$) declare that the family helps them, to make decisions, to solve problems, respectively that they have higher support from the family, unlike girls ($M = 5.95$).

Albanian youth declare higher support from the teachers ($M = 4.20$) than Macedonian youth ($M = 3.88$), $t(5130) = -11.496$, $p = .000$. Albanian boys ($M = 4.26$) express at a higher level that teachers accept them as they are and that they have faith in them, than Albanian girls ($M = 4.15$). Differences regarding support from teachers exist between Macedonian girls and boys. Also, Macedonian boys express higher support from teachers ($M = 3.98$) than Macedonian girls ($M = 3.79$).

Higher support from classmates is declared by Albanian youth ($M = 4.27$) than Macedonian ones ($M = 4.14$), $t(5129) = -5.501$, $p = .000$. In contrast to girls ($M = 4.20$), Albanian boys state that they have higher support from their classmates, that their classmates are happy to hang out and that they are good and want to help ($M = 4.35$). The difference regarding support from classmates also exists between Macedonian boys and girls. Macedonian boys at a higher level agree that classmates are happy to accompany, help and that they are accepted by them as they are ($M = 4.24$) than girls ($M = 4.04$).

Over half of the Albanian girls declare that they love school a lot (58%), while only a third of the Macedonian boy state that they are satisfied with school (32.6%). Macedonian girls (58.3%) express pressure from schoolwork the most, while Albanian boys (44.2%) say the least. More girls than boys declare about problematic social media use, even Macedonian girls more than all other subgroups (16.1%).

Problematic SMU was negatively correlated to family support, with small to moderate effect for Albanians ($r = -.245$) and Macedonians ($r = -.219$). In Albanian youth, problematic SMU was correlated with lower teacher support ($r = -.187$) classmates support ($r = -.130$) and school satisfaction ($r = -.176$) but with higher school pressure ($r = .128$), with small effect size. In Macedonian youth, problematic SMU was correlated with lower teacher support ($r = -.126$), classmates support ($r = -.134$), school satisfaction ($r = -.080$), but is positively correlated with school pressure ($r = .088$) and age ($r = .040$). All correlations were with small effect.

Table 1. Means of the variables included in the study

Variable		total	Macedonian				Albanian				t		
			Boy		Girl		Boy		Girl				
			N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)			
Family support	1-7	5139	6.01 (1.52)	1675	6.11 (1.45)	1750	5.95 (1.55)	3.11	808	6.01 (1.57)	903	5.94 (1.53)	.920357
Teacher support	1-5	5132	3.99 (.95)	1674	3.98 (.95)	1749	3.79 (.98)	5.41	805	4.26 (.82)	901	4.15 (.89)	2.60009
Classmate support	1-5	5131	4.18 (.79)	1675	4.24 (.74)	1750	4.04 (.84)	7.36	805	4.35 (.76)	898	4.20 (.75)	8.949000
			%	%	%	%	%			%	%		
PSMU			13.7	12.4	16.1	11	13.5						
School satisfaction			40	32.6	33.3	49.9	58						
School pressure			51.5	50.3	58.3	44.2	48						

Table 2. Correlation between variables included in the study

Variable	1	2	3	4	5	6	7
PSMU	-	-.245**	-.187**	-.130**	-.176**	.128**	.035
Family support	-.219**a	-	.336**	.237**	.222**	-.120**	-.097**
Teacher support	-.126**	.316**	-	.427**	.376**	-.255**	-.235**
Classmates support	-.134**	.285**	.429**	-	.252**	-.156**	-.065**
School satisfaction	-.080**	.140**	.354**	.272**	-	-.273**	-.208**
School pressure	.088**	-.113**	-.301**	-.156**	-.268**	-	.143**
Age	.040*	-.064**	-.297**	-.055**	-.213**	.240**	-

** $p < .01$; * $p < .05$; a = Macedonian language

Findings of the logistic regression analyses

We conducted a series of regressions to examine the effect of family support, teacher support, classmates support, school satisfaction and school pressure to predict problematic social media use (SMU).

A binary logistic regression was carried out to assess the effect of family support, teacher support, classmates support, school satisfactions, school pressure and age on the likelihood of problematic social media use of Albanian girls (table 3). The overall model was statistically significant when compared to the null model, ($\chi^2 (6) = 110.443, p < 0.01$), explained 22% (Nagelkerke R square) of the variation of problematic SMU and correctly predicted 85.8% of cases. Family support ($p < 0.001$), school satisfaction ($p < 0.05$), and school pressure ($p < 0.05$), make a statistically significant contribution to the model, but teacher support ($p = .519$), classmates support ($p = .543$) and age ($p = .266$), did not (Table 3). Albanian girls who feel some or a lot school pressure reported 2.212 more times problematic SMU (95% CI from 1.355 to 3.611). Those who reported less family support were .679 time more to report problematic SMU (95% CI from .599 to .707), and those who are less satisfied from school reported .535 time more problematic SMU (95% CI from .535 to .880).

Table 3. Binary logistic regression for predicting problematic use of social media in Albanian girls

	B	SE	Wald	df	P	Odds Ratio	95% CI For Odds ratio	
							Lower	Upper
Age	.158	.142	1.239	1	.266	1.171	.887	1.546
Family support	-.387	.064	36.760	1	.000	.679	.599	.770
Teacher support	-.085	.132	.416	1	.519	.919	.710	1.189
Classmate support	-.088	.146	.369	1	.543	.915	.688	1.218
School satisfaction	-.625	.254	6.079	1	.014	.535	.326	.880
School pressure	.794	.250	10.077	1	.002	2.212	1.355	3.611
constant	.464	.747	.385	1	.535	1.590		

Binary logistic regression was performed to assess the effect of family support, teacher support, classmates support, school satisfactions, school pressure and age on the likelihood of problematic social media use of Albanian boys (table 4). The full model as a whole was statistically significant ($\chi^2 (6) = 33.860, p < 0.01$), indicating that the model distinguished between boys that reported problematic SMU and no problematic SMU. The model as a whole explains 8.8% (Nagelkerke R square) of the variance of problematic SMU and correctly classified 88.9% of the cases. As shown in the table, age ($p < 0.05$), family support ($p < 0.05$), and school satisfaction ($p < 0.05$), makes a statistically significant contribution to the model, but teacher support ($p = .102$), classmates support ($p = .767$) and school pressure ($p = .934$) did not (table 4). Albanian boys who reported less family support reported .818 more times problematic SMU (95% CI from .706 to .948), and those who are less satisfied from school reported .489 time more problematic SMU (95% CI from .287 to .833). Albanian boys who are younger reported .601 more problematic SMU (95% CI from .445 to .810).

Table 4. Binary logistic regression for predicting problematic use of social media in Albanian boys

	B	SE	Wald	df	P	Odds Ratio	95% CI	
							For Odds ratio	
							Lower	Upper
Age	-.510	.153	11.173	1	.001	.601	.445	.810
Family support	-.201	.075	7.097	1	.008	.818	.706	.948
Teacher support	-.246	.150	2.672	1	.102	.782	.583	1.050
Classmate support	-.047	.158	.088	1	.767	.954	.700	1.301
School satisfaction	-.716	.272	6.912	1	.009	.489	.287	.833
School pressure	-.021	.249	.007	1	.934	.980	.601	1.597
constant	1.578	.835	3.572	1	.059	4.847		

Results from binary logistic regression shows the effect of family support, teacher support, classmates support, school satisfactions, school pressure and age on the likelihood of problematic social media use of Macedonian girls (table 5). The full model as a whole was statistically significant ($\chi^2(6) = 146.339, p < 0.01$), indicating that model distinguish between Macedonian girls that reported problematic SMU and no problematic SMU. The model as a whole explain 13.9% (Nagelkerke R square) of the variance of problematic SMU and correctly classified 83.9% of the cases. As shown in the table, age, family support ($p < 0.01$), and school pressure ($p < 0.01$), makes a statistically significant contribution to the model, but teacher support ($p = .167$), classmates support ($p = .073$) and school satisfaction ($p = .160$) and age ($p = .934$), did not (Table 5). Macedonian girls who reported some or a lot school pressure were 1.905 time more to report problematic SMU (95% CI from 1.366 to 2.657), and those which reported less family support were .740 more times to report problematic SMU (95% CI from .683 to .803).

Table 5. Binary logistic regression for predicting problematic use of social media in Macedonian girls

	B	SE	Wald	df	P	Odds Ratio	95% CI	
							For Odds ratio	
							Lower	Upper
Age	.008	.095	.007	1	.934	1.008	.836	1.215
Family support	-.300	.041	52.933	1	.000	.740	.683	.803
Teacher support	-.117	.085	1911	1	.167	.890	.754	1.050
Classmate support	-.158	.088	3.206	1	.073	.854	.718	1.015
School satisfaction	-.264	.188	1.971	1	.160	.768	.532	1.110
School pressure	.645	.170	14.430	1	.000	1.905	1.366	2.657
constant	.712	.453	2.469	1	.116	2.037		

Binary logistic regression was performed to assess the effect of family support, teacher support, classmates support, school satisfactions, school pressure and age on the likelihood of problematic social media use of Macedonian boys (table 6). The full model as a whole was statistically significant ($\chi^2(6) = 35.277, p < 0.01$), indicating that model distinguish between Macedonian boys that reported problematic SMU and no problematic SMU. The model as a whole explain 4.1% (Nagelkerke R square) of the variance of problematic SMU and correctly classified 87.5% of the cases. As shown in the table, family support ($p < 0.01$), and classmates

support ($p < 0.05$), makes a statistically significant contribution to the model, but teacher support ($p = .549$), school satisfaction ($p = .941$), school pressure ($p = .573$) and age ($p = .774$), did not (table 6). Macedonian boys who reported less family support were .780 times more to report problematic SMU (95% CI from .709 to .858), and those less classmates support were .805 time more to report problematic SMU (95% CI from .652 to .993).

Table 6. Binary logistic regression for predicting problematic use of social media in Macedonian boys

	B	SE	Wald	df	P	Odds Ratio	95% CI For Odds ratio	
							Lower	Upper
Age	.028	.098	.082	1	.744	.972	.803	1.178
Family support	-.249	.048	26.342	1	.000	.780	.709	.858
Teacher support	.057	.095	.359	1	.549	1.059	.878	1.276
Classmate support	-.217	.107	4.090	1	.043	.805	.652	.993
School satisfaction	-.013	.178	.005	1	.941	.987	.697	1.398
School pressure	-.091	.161	.318	1	.573	.913	.666	1.252
constant	.323	.532	.370	1	.543	1.382		

Discussion and conclusions

This study determined some of the factors as predictors of problematic SMU. Parental support predicts adolescent problematic social media use for both genders and ethnic groups. Classmates support, and well-being at school such as school satisfaction and school pressure are significant predictors of problematic social media use by adolescents but depend on gender and ethnic group.

This study identified disturbing numbers of social media use by teenagers. 13.7% of teenagers in the Republic of North Macedonia are categorized as problematic social media user, which is a high percentage compared to studies of other countries conducted in representative samples for the countries (Banyai et al., 2017; Schivinski, 2020; Duin, et al. 2021, Bexheti et al., 2024) and with a percentage movement of 3.22 to 14.17% (Boer et al., 2020). According to gender, girls (15.2%) are in a higher percentage who fall into the category of problematic social media use than boys, which is also supported by other research (Banyai et al. 2017; Marino et al., 2020).

Boys in our study, in both ethnic groups, unlike girls, declare that they receive higher support both from teachers and classmates which is differ with result of some other studies. Marcus et al. (2022), in a study conducted with primary school children, aged 8-11 years, showed that girls see relationships with teachers as more positive than boys. On the other hand, with increasing age, the feeling of support from adults decreases (Inchley et al., 2016) and in our study the participants are aged 11, 13 and 15 years. The second possible reason of such discrepancy could be the cultural difference, namely the dominance of conventional rules in the RNM society.

Family support emerges as a significant factor contributing to the problematic social media use across all four subgroups analyzed, including boys and in girls from both Albanian and Macedonian ethnic backgrounds. When adolescent perceive less support from their family, as feeling lacking in emotional support, comfort in discussing their problems, and confidence in their family's assistance with decision-making, they are more likely to fall into the category of problematic social media use. This data is in accordance with the findings of other studies, that social support (referring to family and peer support) predict problematic social media use (Boer

et al., 2020; Song, 2021; Duin et al., 2021; Geurts, et al. 2023) which confirms that family support shapes the behaviour of adolescents. The sense of belonging was related to the problematic social media use (Kircaburun et al., 2019). The feeling of being supported through help and emotional support and the freedom to discuss problems and then support in decision making shows the form of connectedness with family. This perception of the quality and satisfaction of the connection with others, and in this case with the family, is an indication of the sense of belonging. This means that the more support we have from the family, the less the need will be present to fill it by looking for other ways, such as the problematic use of social media.

School well-being appears to be more unstable in predicting problematic social media use. First, support from teachers is not a significant predictor of problematic social media use, not even for any subgroup, neither for girls nor for boys, of the Macedonian or Albanian ethnic group. This data is in the same direction as other data. Duin et al. (2021) show in the final model that family and peer support proves to be a predictor of problematic social media use but not teacher support. Inconsistency with other research (e.g., Song, 2021) that finds teacher support to be related to problematic social media use may be the result of different measures of teacher support.

In our study, support from classmates is shown as a predictor of problematic social media use only among the Macedonian ethnic group boys, but not among the Albanian boys nor among the girls of the two ethnic groups. This data is not in the same direction as the findings of Boer et al. (2020) and Duin et al., (2021). This difference may result from the fact that we measured support from classmates and not peer support. Peer connection and support can also include friends outside the school district, and does not necessarily mean the classroom. Those with whom we choose to socialize turn out to have a stronger impact than classmates, since our interactions with classmates may not always lead to meaningful social connections.

School satisfaction and school pressure are predictors of problematic social media use. The lower their satisfaction with school and the higher their perception of school pressure, the more likely adolescents are to belong to the category of problematic social media users. We also find this conclusion in the study of Boer et al. (2020). In our study, school satisfaction is a predictor of problematic social media use only for Albanian boys and girls, but not for Macedonian adolescents. The cultural factor in terms of the value of education for young people can be a clarification of this prediction, which should be tracked in the future. However, school pressure appears as a predictor of problematic social media use in Macedonian and Albanian girls, but not in boys of both ethnic groups. The study of Salmela-Aro et al (2017) also shows that girls experience school pressure more than boys, which shows that exhaustion from school increases the use of the Internet by teenagers, especially among girls. School pressure on girls is higher than on boys, which may be the result of demands and expectations directed at girls in certain cultures. Taking into account that the society in North Macedonia, however, works essentially with traditional values with a clear dividing line between gender roles. In these societal roles, girls often face greater demand for school achievement, which contributes to feeling the school pressure more strongly, as they perceive it (school achievement) as the primary pathway to success. In contrast, boys may experience more freedom in navigating challenges and functioning in life, allowing for different coping mechanisms and pathways to success.

The use of a representative sample for the Republic of North Macedonia is one of the strengths of this study, providing separate analyzes for two cultural groups living in it. Also, this study helps to advance the field of problematic social media use by clarifying the predictors of PMSU such as the aspect of family support but also school factors. However, the study also has its limitations, such as the use of self-report scales that imply the subjects' responses to be biased for the use of social media. The limitation is also related to the use of well-being at school, as

school pressure and satisfaction were measured with only one item. Future studies should focus on using multi-item constructs of school well-being.

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