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KICKING BACK AGAINST BULLYING: SOCIAL MEDIA, PSYCHOLOGICAL DISTRESS, AND THE MODERATING ROLE OF KEMPO TRAINING AMONG ROMANIAN ADOLESCENTS

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Abstract

While prior studies have widely explored the relations between bullying experiences, distress, and social media use, limited research has examined the potential protective role of Kempo, a traditional martial art. Thus, the present study aimed to examine the relations between the time spent on social media, bullying experiences, and psychological distress among youth. A sample of 254 Romanian adolescents aged 11 to 17, including 188 Kempo practitioners and 66 non-practicing peers, participated in this study. We aimed to determine whether adolescents who practice Kempo differ from their peers regarding bullying victimization, distress, and active

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bystander bullying involvement, and whether Kempo practice moderates the link between bullying and psychological outcomes, i.e., distress. Results indicated that both offline and online bullying victimization were positively associated with psychological distress. Adolescents in the Kempo group reported significantly lower levels of offline victimization and psychological distress compared to their non-practicing peers. However, they were also less likely to engage in active defending behavior. Contrary to expectations, Kempo practice did not buffer the impact of victimization; instead, the link between offline bullying and distress was stronger among Kempo practitioners. The moderating effect was not significant for online bullying. These findings suggest that while Kempo practice may support general wellbeing, it does not necessarily protect against the emotional effects of bullying victimization.

Keywords: ***adolescents; martial arts; kempo; distress; social media.***

Introduction

Bullying is no longer confined to school hallways or playgrounds; it follows adolescents home, appears on their screens, and infiltrates their daily digital lives (Smith et al., 2023). Whether through negative, aggressive messages, social exclusion, or physical intimidation, bullying has become a multifaceted, worldwide threat to individuals' well-being, particularly to adolescents (Drubina et al., 2023). Today's youth navigates both offline confrontations and the persistent, often anonymous attacks of cyberbullying (Santre, 2023). While traditional bullying involves verbal taunts, physical aggression, or social manipulation (Brosowski et al., 2021), its digital counterpart (i.e., cyberbullying) amplifies the harm through permanence, audience reach, and 24/7 accessibility (Knack et al., 2021). The emotional toll of these experiences can be profound, with various previous studies highlighting the significant link between bullying and increased psychological distress, including anxiety, depression, and stress (Hikmat et al., 2024; also see the review of Li et al., 2024).

However, when discussing the link between bullying and the digital space, we cannot ignore that social media platforms like Instagram, TikTok, and WhatsApp often serve as digital stages where adolescents craft identities, seek peer approval, and build social networks (Allen et al., 2014). These digital spaces can empower self-expression and foster belonging, which are highly important experiences during this developmental stage (Vallejos, 2019). Many studies highlight the benefits of social media use among youth and raise attention to the fact that we should not focus only on the harmful effects of digital use (O'Reilly et al., 2019), but rather adopt a more

comprehensive view, including the activities, motives, and social media communication patterns (Yang et al., 2021).

Nevertheless, beneath the surface of positive scrolling and sharing, as the available literature highlights, we must also acknowledge the constant pressure to perform, compare, and stay connected to digital environments and social network use in particular, and their adverse effects (Brooks, 2015). These characteristics of social media interactions and use sometimes fuel a cycle of vulnerability marked by fear of missing out (FOMO), social comparison, and digital fatigue (Steele et al., 2020). Thus, a growing amount of scientific evidence also links frequent social media use to increased psychological distress, including anxiety, depression, and lower self-esteem (Keles et al., 2020). More importantly, since the digital environment often serves as a fertile ground for cyberbullying, it can amplify peer harassment; in this context, social media becomes a double-edged sword (X. Li et al., 2023), offering connection on one hand and compounding psychological risk on the other. Consequently, the present study also focused on the relation between social media use and adolescents' psychological distress.

Further, as peer aggression grows more complex and bullying and cyberbullying become so prevalent around the globe, so too must our efforts to understand and mitigate their impact. Moreover, these efforts should be even greater when discussing the impact on adolescents, given the psychological vulnerability of this developmental stage (see the review conducted by Ye et al., 2023). We believe it is all the more important to research bullying and cyberbullying in cultural spaces such as Romania, where a growing number of studies signal a troubling rise in online and offline victimization among youth (Merlici & Maftei, 2025; Rus et al., 2024). Identifying risk factors and protective resources, such as martial arts training, is also an important research direction in this landscape, and the present study is focused on this particular topic.

Witnessing bullying and taking action

In the face of bullying, silence is not the only response: some adolescents choose to step in. They are known as *active bystanders*, who defend their peers and disrupt the cycle of bullying (Merlici & Maftei, 2025). However, not every adolescent feels confident enough to act. The decision to intervene often hinges on personal traits like empathy, moral sensitivity, self-efficacy, peer status, or social courage (Thornberg & Jungert, 2013; Zhou et al., 2024). That may be one of the reasons why structured, values-based contexts, such as martial arts training, may play an important role.

Kempo, for instance (i.e., a hybrid martial art that combines traditional Eastern martial philosophies with practical self-defense techniques drawn from multiple combat systems; Robianti et al., 2024), emphasizes respect, emotional control, and responsibility, potentially nurturing the skills that empower adolescents to move from passive bystanders to active defenders. In this way, martial arts may serve as physical training and a platform for cultivating prosocial behavior, as previous research highlighted.

Martial arts, bullying, and distress

Contrary to common beliefs, martial arts may offer more than physical strength or power. More specifically, practicing martial arts may shape how people think, feel, and respond to adversity (Moore et al., 2024). Beyond the kicks and strikes, practicing such sport, like Kempo, may foster respect, self-control, resilience, and non-violence, contrary to many competitive sports that may focus primarily on performance or winning (Moore et al., 2021). Research has also linked participation in martial arts to a variety of positive psychosocial outcomes in youth, including better emotional regulation, reduced aggression, enhanced self-discipline, and overall wellbeing (Tadesse, 2017).

Further, some studies suggested that martial arts might act as a protective factor against the harmful effects of bullying (Xu et al., 2024). According to previous data, adolescents who practice martial arts tend to report fewer victimization bullying experiences, a higher availability or engagement in defending bullying victims, and lower psychological distress when facing interpersonal challenges (Moody, 2012)This suggests that martial arts may contribute to higher psychological resilience when facing such conflicts and negative experiences. Still, research specifically examining the potential moderating role of Kempo in the link between bullying victimization and psychological outcomes is scarce, and the present study aimed to address this gap.

The present study

In this study, we tried to answer the following primary research questions: *(1)* What are the associations between time spent on social media, bullying experiences, and psychological distress?, *(2)* Do adolescents who practice Kempo differ from non-practicing adolescents (control group) in terms of bullying experiences, active bystanding behaviors, time spent online, and

psychological distress?, *(3)* Does Kempo practice moderate the relationship between bullying victimization and psychological distress?.

Based on the available literature, we hypothesized the following: *H1:* More time spent on social media would be positively associated with increased experiences of online bullying victimization and psychological distress in both groups; *H2:* Adolescents who practice Kempo would report less frequent bullying offline and online victimization, higher active bystanding behavior, and lower psychological distress compared to non-practicing peers; *H3*. Kempo practice would moderate the relationship between bullying victimization and psychological distress.

Method

Participants and Procedure

The research sample comprised 254 Romanian adolescents aged 11 to 17 (*M* age = 13.64, *SD* = 1.47, 48.8% females). In the Kempo group, there were 188 adolescents (*M* age = 13.70, *SD* = 1.54, age range 11 to 17, 42.60% females), and in the control group there were 66 adolescents (*M* age = 13.48, *SD* = 1.25, age range 11 to 16, 66.70% females). Recruitment for the study involved reaching out to Kempo club managers nationwide, who were asked to support the research by distributing the invitation to eligible adolescents and their parents. Parental informed consent was obtained via an online form before data collection. The survey, also conducted online, was designed to be user-friendly and appropriate for the participants' age group. Participation was entirely voluntary, and adolescents were informed of their right to withdraw from the study at any time without any negative consequences.

All ethical standards were upheld following the Declaration of Helsinki (2013), and the study received approval from the institutional ethics committee before data collection commenced. To ensure privacy, all responses were collected anonymously and handled with strict confidentiality. As a gesture of appreciation, each participant received a small symbolic reward worth approximately 2 euros. Data collection took place in the early months of 2025, and the survey required about 15 minutes to complete.

Measures

Bullying Experiences. We used the Multidimensional Offline and Online Peer Victimization Scale (Sumter et al., 2015) to measure participants' online and offline bullying experiences. More

specifically, 10 items measured school offline victimization experiences in the past three months, and 10 measured offline victimization experiences. Example items included: "Another child/young person kicked or hit me" (offline bullying - victim); "Another child/young person sent me nasty messages online" (online bullying – victim). Cronbach's alphas were higher than 0.90 (0.93 for both offline and online victimization), indicating strong reliability. Higher scores indicated higher bullying victimization experiences.

Active bystanding. To measure participants' bullying experiences as active bystanders, we asked them the following questions regarding their online or offline bullying behaviors toward others: *When witnessing such events, how often did you intervene to defend a colleague?* Participants answered on a scale ranging from 1 = almost never to 5 = almost always. Higher scores indicated a higher tendency to intervene as an active bystander/witness in online or offline school bullying situations.

Psychological distress. We used the Depression Anxiety and Stress Scales - Youth version (DASSY; Szabo & Lovibond, 2022) to measure participants' psychological distress. The instrument is designed for youth aged 7 to 18, the age range targeted in the present study. The scale contains 21 items that measure the negative emotional states of depression (example item: "I did not enjoy anything"), anxiety (example item: "I felt dizzy, like I was about to faint"), and stress (example item: "I got upset about little things") on a scale ranging from 0 (not true) to 3 (very true). We used the scale's total score, with a Cronbach's alpha of 0.96. Higher scores indicated higher psychological distress.

We assessed **social media use** using a single item. We asked participants to self-report the number of hours they spent on social media daily. A demographic questionnaire was used to report age, gender, and experience as a kempo practitioner.

Results

Overview of Statistical Analysis

Data analysis was conducted using SPSS version 26 and the Process program (Hayes, 2012). Cronbach's α, a commonly used indicator of reliability, assessed the internal consistency of all variables. As all survey questions were mandatory, no data were missing. We began with univariate descriptive analyses (see Table 1), carefully assessing the assumption of univariate normality for continuous variables by examining skewness and kurtosis values to understand the

data distribution thoroughly. Preliminary analyses included a correlation matrix to explore the relationships between the dependent variable and key demographic factors, allowing for the control of any statistically significant demographic variables in subsequent analyses. An additional correlation matrix was also calculated and described to provide deeper insight into the interrelationships among the study variables.

Table 1.

Descriptive statistics for the main variables

Variables	M	SD	Min	Max	Skewness	Kurtosis
Overall sample						
Active defending - offline	2.10	1.06	1	5	.78	.001
Active defending - online	2.11	1.12	1	5	.77	-.26
Offline victimization	20.42	8.34	10	50	.42	-.37
Online victimization	20.50	8.55	10	50	.28	-.96
Psychological distress	11.73	13.54	0	56	1.07	.23
Control group						
Active defending - offline	2.74	1.26	1	5	.27	-.83
Active defending - online	2.62	1.35	1.	5	.38	-.94
Offline victimization	22.56	9.65	10	50	.71	-.12
Online victimization	20.28	8.99	10	50	.78	.23
Psychological distress	21.54	13.82	0	56	.77	.19
Kempo group						
Active defending - offline	1.88	.88	1	4	.69	-.38
Active defending - online	1.94	.98	1	4	.73	-.53
Offline victimization	19.68	7.72	10	35	.09	-1.32
Online victimization	20.57	8.41	10	37	.07	-1.45
Psychological distress	8.29	11.65	0	37	1.31	.35

Correlation analysis

Zero-order correlation analyses suggested that, in the overall sample, time spent on social media was positively related to age ($r = .34$, $p < .001$) and negatively related to offline victimization ($r = .81$, $p < .001$). Next, offline victimization was positively related to age ($r = .13$, $p = .02$), active

offline (r = .58, p <.001) and online (r = .58, p <.001) defending behavior, online victimization (r = .81, p <.001), and distress (r = .58, p < .001). Further, online victimization was positively related to age (r = .18, p = .003), active offline (r = .48, p <.001) and online (r = .60, p <.001) defending behavior, offline victimization (r = .81, p < .001), and distress (r = .51, p < .001) (see Table 2).

In the control group, active offline defending was positively associated with offline victimization (r = .31, p = .01), as well as with active online defending behavior (r = .77, p < .001). Further, active online defending behavior was positively associated with offline (r = .34, p = .005) and online (r = .36, p = .003) victimization. Psychological distress was positively associated with offline (r = .44, p < .001) and online (r = .41, p = .001) victimization, and with time spent online (r = .40, p = .001).

In the Kempo group, age was positively correlated with all variables (all p-s < .05), except for psychological distress (p = .46). Active offline defending behavior was positively correlated with active online defending behavior *(*r = .48, p <.001), offline (r= .73, p < .001) and online victimization (r = .69, p <.001), and with distress (r = .53, p < .001), and the same associations emerged with active online defending behavior. Next, offline and online victimization were positively correlated with all variables except for time spent on social media, where the correlation was negative (r = -.15, p = .03). Also, distress was negatively associated with the time spent on social media (r = -.29, p < .001).

Table 2.

Correlations between the main variables

Variable	1	2	3	4	5	6
Overall sample						
1. Age	-					
2. Active defending - offline	.05	-				
3. Active defending - online	.09	.63**	-			
4. Offline victimization	.13*	.58**	.58**	-		
5. Online victimization	.18*	.48**	.60**	.81**	-	
6. Time on social media	.34**	-.10	-.01	-.14*	-.06	-
7. Psychological distress	.03	46**	.45**	.58**	.51**	-.11
Control group						
1. Age	-					
2. Active defending - offline	-.07	-				

3. Active defending - online	-.08	.77**	-			
4. Offline victimization	-.08	.31*	.34**	-		
5. Online victimization	-.02	.22	.36**	.75**	-	
6. Time on social media	.22	-.10	.05	-.10	.05	-
7. Psychological distress	.13	.10	.12	.44**	.41**	.40**
Kempo group						
1. Age	-					
2. Active defending - offline	.15*	-				
3. Active defending - online	.19*	.48**	-			
4. Offline victimization	.23*	.73**	.71**	-		
5. Online victimization	.25*	.77**	.77**	.86**	-	
6. Time on social media	.37**	-.02	-.02	-.15*	-.10	-
7. Psychological distress	.05	.54**	.54**	.65**	.64**	-.29**

*$p < .05$; ** $p < .001$.

Testing for group differences

Next, we examined whether there are any differences concerning the primary variables between the two groups (i.e., control and Kempo groups). Independent T-test results indicated significant differences regarding active offline defending behavior, t(252) = 5.08, $p < .001$. More specifically, the participants in the control group ($M = 2.74$) scored significantly higher than those in the Kempo group ($M = 1.88$). Next, significant differences were observed regarding active online defending behavior, t(252) = 3.74, $p < .001$, with participants in the control group ($M = 2.62$) scoring significantly higher than those in the Kempo group ($M = 1.94$).

Table 3

Independent-Samples T test results

Variables	F	t	p
Active defending - offline	16.20	5.08	<.001
Active defending - online	16.85	3.74	<.001
Offline victimization	2.59	2.43	.01
Online victimization	.002	-.23	.81
Psychological distress	1.91	7.55	<.001

Also, significant differences emerged when examining offline victimization, t(252) = 2.43, p = .01; participants from the control group (M = 22.56) scored significantly higher than those in the Kempo group (M = 19.68). Also, significant differences were observed in terms of psychological distress, t(252) = 7.55, p < .001, with participants in the control group (M = 21.54) scoring significantly higher than those in the Kempo group (M = 8.29). No significant differences were observed when discussing online victimization (see Table 3).

Testing the moderating effect of Kempo practice

We used Model 1 (Process; (Hayes, 2012) to test the potentially moderating effect of Kempo participation on the link between bullying victimization and psychological distress. We assumed that the negative impact of bullying on psychological distress would be weaker for Kempo practitioners than for those in the control group. Analyses were conducted while controlling for participants' gender, age, Kempo training length, and the time spent on social media.

Offline bullying victimization. Offline victimization was a significant positive predictor of psychological distress (b = .64, SE = .12, p < .001, 95% CI [.40, .90]): higher offline victimization was associated with higher psychological distress. The moderating effect of Kempo practice was also significant (b = .36, SE = .16, p = .02, 95% CI [.05, .68]). In the control group, the effect of offline bullying victimization on distress was significant and moderate (b = 0.64, SE = 0.12, p < .001). For the Kempo group, the effect was stronger (b = 1.01, SE = 0.09, p < .001), suggesting that Kempo practitioners who experienced victimization reported higher distress levels than non-practitioners.

Online bullying victimization. Results suggested that Online victimization significantly predicted psychological distress (b = 0.64, SE = 0.13, p < .001, 95% CI [0.37, 0.91]), indicating that higher levels of online victimization were associated with higher levels of distress. Similar to the offline bullying analysis results, being in the Kempo group was associated with lower overall distress scores (b = -13.21, SE = 5.89, p = .026, 95% CI [-24.81, -1.61]). The interaction effect, however, was not significant (b = 0.265, SE = 0.165, p = .110, 95% CI [-0.06, 0.59]), i.e., the relation between online victimization and psychological distress did not significantly differ between Kempo practitioners and the control group.

Discussion

The current research aimed to examine the relations between bullying experiences (online and offline active defending behavior, and online and offline bullying victimization), social media use, and psychological distress among Romanian adolescents. We also aimed to test the potentially moderating effect of Kempo martial arts practice on the link between bullying experiences and distress. Building on the existing literature on the link between martial arts practice and adolescents' emotional states, self-regulation, and overall well-being, we expected Kempo practice to act as a protective buffer, reducing the psychological effects of bullying victimization experiences (offline and online). Our findings offer some insights into these associations and, interestingly, challenge some of the common assumptions.

Similar to previous studies (e.g., Hikmat et al., 2024), our results confirmed that both offline and online bullying victimization were significant positive predictors of psychological distress. Our findings reinforce that negative peer interactions, such as bullying experiences, can significantly harm adolescents' psychological well-being, regardless of whether they occur in face-to-face (i.e., traditional, offline bullying) or digital environments (i.e., cyber-bullying). The emotional adverse effects of victimization, such as psychological distress symptoms (i.e., depression, anxiety, and stress), seem strong in both contexts, highlighting that the line between offline and online bullying is becoming less clear in today's digital world (Smith et al., 2023).

Further, our results suggested that, while time spent on social media was positively associated with psychological distress in the control group, this association was negative in the Kempo group, and this may be one of our most interesting findings. This specific result might highlight the dual nature of digital platforms: while overuse of social media may heighten some psychological risks for some adolescent users, others may engage with social media differently. Thus, we can assume that Kempo practitioners might rely less on social validation from social media or have developed better emotional regulation skills through training (Moore et al., 2024). Nevertheless, these potential explanations and assumptions need further, deeper exploration in future studies.

A rather unexpected result, considering our assumptions, was that, though adolescents in the Kempo group reported lower levels of psychological distress and offline victimization compared to the control group, they also reported less frequent active defending behavior, both online and offline. One potential explanation for this specific result is that adolescents who practice Kempo might interpret social conflict differently, perhaps being more selective in their intervention efforts,

or they might value non-escalation strategies over confrontation. Nevertheless, given the scarce available literature focused on Kempo, these potential explanations call for further research to explore how martial arts training might influence adolescents' choices and motives concerning bystander behavior in bullying situations and social responsibility, in general. Moreover, we believe that qualitative and quantitative approaches might be used to shape a more comprehensive view of these relations.

Contrary to our hypothesis, Kempo practice was not a significant moderator of the relation between online victimization and did not buffer the psychological impact of bullying victimization (but did significantly moderate the relation between offline bullying victimization and distress). Furthermore, in the case of offline bullying, the association with distress was stronger among participants who practiced Kempo. One possible interpretation is that Kempo practitioners, trained in values such as discipline and self-control, may internalize victimization more deeply as a personal failure, thus experiencing higher psychological dissonance and distress when targeted by bullies. Alternatively, these adolescents might have heightened moral sensitivity or social awareness, making them more attuned to injustice and, consequently, more emotionally vulnerable in this context. However, further research is needed to understand better these possible explanations, and to test other potential factors that may be significant when discussing the effects of martial arts training mong adolescents.

Limitations and future directions

Several limitations must be acknowledged when interpreting the present findings. First, the cross-sectional design does not allow us to formulate causal inferences. Future longitudinal studies are needed to determine whether martial arts training, such as Kempo, indeed contributes to psychological resilience in the face of bullying. Second, we only used self-report measures, heightening the possibility of social desirability bias. Third, since we only focused on Kempo practice, the present findings may not be generalized to other martial arts styles, which can vary significantly in philosophy and training practices. Next, our control group was significantly smaller than the Kempo group; future studies would benefit from a more balanced sample. Also, we believe that future research would benefit from examining these relations using qualitative approaches, to explore more deeply the experiences of martial arts training, and to examine whether specific psychological traits (e.g., emotion regulation, moral development) might mediate

the link between martial arts and mental health outcomes. Additionally, using extended perspectives regarding, for instance, adolescents' psychological distress or bullying experiences (e.g., additional reports from teachers or parents) might strengthen the validity of the current findings.

Conclusion

The present study highlights the significant impact of bullying victimization experiences, both online and offline, on adolescents' psychological distress, and challenges the assumption that martial arts training like Kempo universally and significantly protects against these harmful effects. While Kempo practitioners did report lower overall distress, their heightened vulnerability to victimization-related distress suggests a need for more nuanced approaches to understanding resilience. Structured programs like martial arts hold promise, but their protective value may depend on context, implementation, and individual differences.

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