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Evidence-based interventions for promoting prosocial behavior in schools: Integrative review

Iara da S. Freitas[1]
https://orcid.org/0000-0002-5273-7122

Gabriela E. de Oliveira[1]
https://orcid.org/0000-0001-9790-8602

Vanessa da S. Lima[1]
https://orcid.org/0000-0001-8118-6609

Márcia Helena da S. Melo[1]
https://orcid.org/0000-0002-2061-1832

1   University of São Paulo (USP), São Paulo, SP, Brazil.

Iara da S. Freitas, Gabriela E. de Oliveira, Vanessa da S. Lima, Márcia Helena da S. Melo

Abstract

Since the last decades, an increasing number of research in schools have looked towards prosocial behavior, which refers to voluntary actions aimed at benefiting other individuals. This study aimed to describe evidence-based interventions, available in the national and international literature, focused on promoting prosocial behavior in children and adolescents in the school context. An integrative literature review was carried out with searches in ERIC, LILACS, PePSIC, PsycINFO, SciELO, and Scopus databases, resulting in 21 articles. Nineteen studies reported positive effects in promoting prosocial behavior and other assessed outcomes, such as socioemotional skills, disruptive behavior, interpersonal relationships, and academic achievement. Future studies should investigate the sustainability of the interventions in schools, compare efficacy and effectiveness between their different modalities and invest in their development in countries in the southern hemisphere.

Keywords: prosocial behavior; schools; evidence based practice; health promotion; violence prevention.

INTERVENÇÕES BASEADAS EM EVIDÊNCIAS PARA PROMOVER COMPORTAMENTOS PRÓ-SOCIAIS EM ESCOLAS: REVISÃO INTEGRATIVA

Resumo

A partir das últimas décadas, um número crescente de pesquisas em escolas tem voltado atenção a comportamentos pró-sociais, que se referem a ações voluntárias, direcionadas a beneficiar outros indivíduos. O objetivo do presente estudo consiste em descrever intervenções baseadas em evidência, disponíveis na literatura nacional e internacional, voltadas à promoção de comportamentos pró-sociais em crianças e adolescentes no contexto escolar. Foi realizada uma revisão integrativa da literatura com buscas nas bases de dados ERIC, LILACS, PePSIC, PsycINFO, SciELO e Scopus, resultando na inclusão de 21 artigos. Dezenove estudos relataram efeitos positivos das intervenções na promoção de comportamentos pró-sociais e em outros desfechos avaliados, como habilidades socioemocionais, comportamentos disruptivos, relacionamentos interpessoais e desempenho acadêmico. Sugere-se que estudos futuros investiguem a sustentabilidade das intervenções nas escolas, comparem eficácia e efetividade entre suas diferentes modalidades, bem como invistam em seu desenvolvimento em países do hemisfério sul.

Palavras-chave: comportamento pró-social; escolas; prática baseada em evidências; promoção de saúde; prevenção de violência.

INTERVENCIONES BASADAS EN EVIDENCIAS PARA PROMOVER LAS CONDUCTAS PROSOCIALES EN LAS ESCUELAS: REVISIÓN INTEGRADORA

Resumen

Desde las últimas décadas, un número creciente de investigaciones en las escuelas se han orientado hacia la conducta prosocial, que se refiere a acciones voluntarias destinadas a beneficiar a otras personas. El objetivo de este estudio fue describir intervenciones basadas en evidencia, disponibles en la literatura nacional y internacional, direccionadas a promover conductas prosociales en niños y adolescentes en el contexto escolar. Se realizó una revisión integradora de la literatura con búsquedas en las bases de datos ERIC, LILACS, PePSIC, PsycINFO, SciELO e Scopus, resultando en la inclusión de 21 artículos. 19 estudios presentaron efectos positivos en la promoción de la conducta prosocial y en otros resultados evaluados, como habilidades socioemocionales, conducta disruptiva, relaciones interpersonales y rendimiento académico. Investigaciones futuras deben examinar la sostenibilidad de las intervenciones, comparar eficacia y efectividad entre sus diferentes modalidades e invertir en su desarrollo en el hemisferio sur.

Palabras clave: conducta prosocial; escuelas; practica basada en la evidencia; promoción de la salud; prevención de la violencia.

1. Introduction

Prosocial behaviors are defined as voluntary actions intended to benefit others and are subdivided into categories such as: helping, sharing, and comforting (Eisenberg, Spinrad, & Knafo-Noam, 2015). According to the literature, schools made an effort to reduce antisocial behavior, especially over the 1990s, possibly due to social losses caused by aggressiveness, criminality, and delinquency. A growing number of studies has focused on prosocial behavior in recent years, not only to deter violence but also to integrate diversity and build a more empathic, collaborative, and fair society (Aznar-Farias & Oliveira-Monteiro, 2006; Caprara, Alessandri, & Eisenberg, 2012; Gottfredson, 2017; Roche, 2010).

Studies show that prosocial behavior is a protective factor against aggressiveness, peer victimization, and social isolation (Griese & Buhs, 2014; Jung & Schroder-Abé, 2019) and is also a predictor of positive interpersonal relationships and good academic performance (Caprara, Barbaranelli, Pastorelli, Bandura, & Zimbardo, 2000; Bergin, 2018). Authors report different approaches to promote

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prosocial behavior in schools, such as structural interventions composed of activities added to regular school curriculum or specific practices and quality interactions established between educators and students daily (Embry & Biglan, 2008; Van Ryzin, Roseth, & Biglan, 2020). Lebel and Chafouleas (2010) note that these strategies should be employed ideally starting in early childhood.

The teaching of prosocial behavior in schools may compose social and emotional learning, divided into five main competencies, i.e., self-knowledge, self-regulation, social awareness, responsible decision-making, and relationship skills (Collaborative for Academic, Social, and Emotional Learning, 2017). The latter is subdivided into interpersonal and intrapersonal skills, while the first refers to prosocial behaviors (Domitrovich, Durlak, Staley, & Weissberg, 2017).

The literature reports that different definitions, categorizations, and assessment methods have been used in the field (Auné, Blum, Facundo, Lozzia, & Horacio, 2014; Martí-Vilar, Corell-García, & Merino-Soto, 2019). According to Eisenberg and Spinrad (2014), research addressing prosocial behavior dates to the 1960s; however, especially from the 2000s onwards, a new generation of research emerged. More sophisticated statistical methods and more robust study designs were adopted, including longitudinal and experimental studies addressing children and adolescents.

Mesurado, Guerra, Richaud, and Rodriguez (2019) performed a meta-analysis to investigate the programs' effectiveness to promote prosocial behaviors and decrease aggressive behaviors. Inclusion criteria were papers, theses, and dissertations conducted from 2000 to 2017, including experimental and control groups and children and adolescents aged 8 to 18. Ten studies were selected, conducted in North American countries and Europe among 10 to 13-year-old children and adolescents, published from 2008 onwards, using the quasi-experimental design. The interventions were moderate to highly effective in promoting prosocial behavior, and all were effective in preventing aggressive behavior. The authors highlight that the results should be interpreted with caution, considering the different strategies used and methods employed to analyze the effects. They also draw attention to the few studies found and recommended developing interventions to acquire new evidence.

According to Spivak, Lipsey, Farran, and Polanin (2015), literature reviews can summarize evidence regarding interventions that present significant impacts

on promoting prosocial behavior among children and adolescents to support the decision-making of professionals, researchers, and policy managers. The authors mentioned earlier note that promoting prosocial behavior at schools is highly relevant in current educational reforms. However, there is a lack of studies reviewing interventional strategies in this field (Mesurado et al., 2019). In this sense, reviews addressing interventions implemented explicitly at schools with children and adolescents at different scientific evidence levels are pertinent. Given the previous discussion, this study's objective was to describe evidence-based interventions intended to promote prosocial behavior among children and adolescents at school available in the Brazilian and international literature.

2. Method

This is an integrative literature review. Therefore, the following question emerged:

- What are the methodological characteristics of the studies and the characteristics of the evidence-based interventions intended to promote prosocial behavior among children and adolescents at schools available in the Brazilian and international literature?

The bibliographic survey was conducted in January 2021 on the following databases: ERIC, LILACS, PePSIC, PsycINFO, SciELO, and Scopus. The following combination of terms and Boolean operators were used in all databases: ("prosocial behavior" OR "helping behavior" OR "sharing behavior" OR "comforting behavior") AND "schools" AND ("intervention" OR "program" OR "trial"). After that, the survey was conducted using the equivalent terms in Portuguese. Filters were used for publication date (2000–2020), type of document (paper), type of source (peer-reviewed journals), and language (Portuguese, English, or Spanish), as the databases allowed.

Inclusion criteria were: 1. articles published in scientific journals between 2000 and 2020; 2. addressing children from 0 to nine years old, and/or adolescents from 10 to 19 years old, or members of the school staff aged 18+; 3. exclusively developed at schools; 4. with interventions intended to promote prosocial behavior; 5. including universal interventions, i.e., implemented to all the individuals of a given school population; 6. evidence-based interventions (experimental, quasi-

experimental studies, pre- and posttest with a group, case series, or case reports); 7. published in Portuguese, English or Spanish. Exclusion criteria were: 1. bibliographic reviews and/or meta-analysis; 2. studies assessing the effects of a given intervention on prosocial behavior, though the objective of which was not to promote prosocial behavior; 3. exclusively follow-up studies (i.e., papers presenting only follow-up data, not including the description of interventions, procedures adopted during the implementation of interventions, or results).
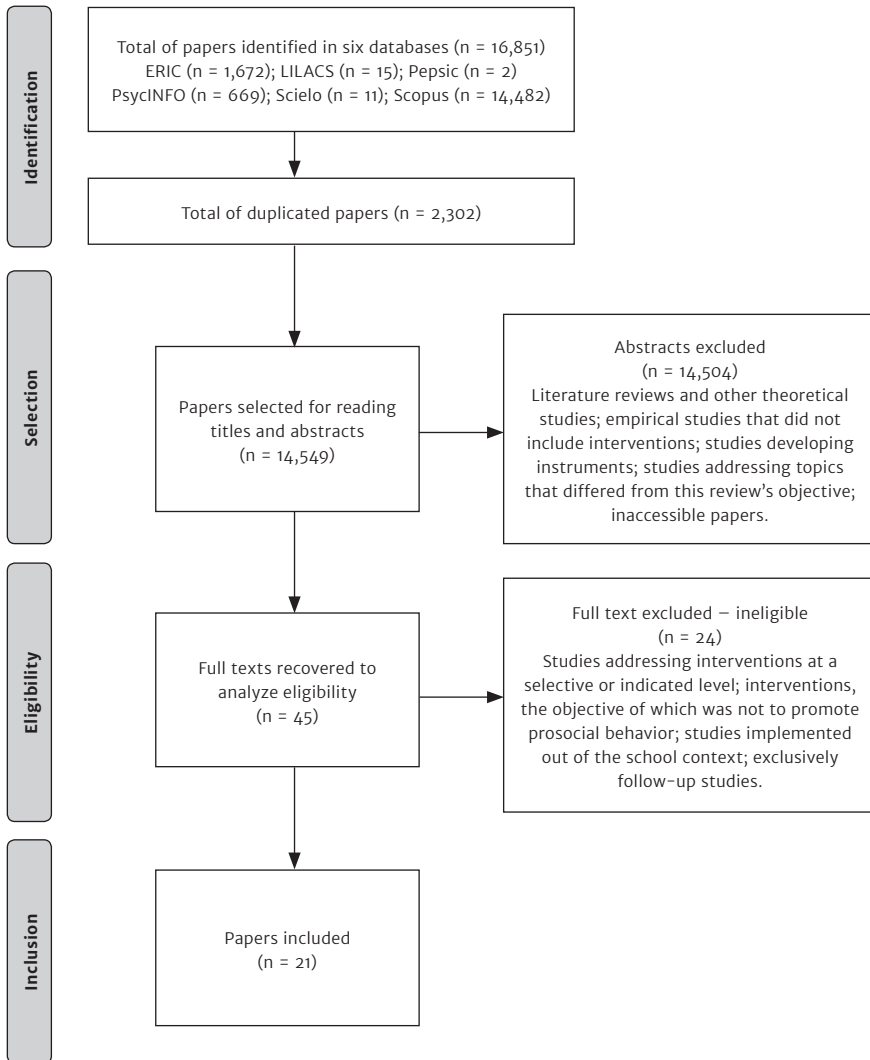
Two researchers from the postgraduate program independently performed the bibliographic survey adopting the same procedures. Later, the results were compared to verify the level of agreement in the selection of studies. Afterward, all the papers' titles and abstracts were read, and those that met inclusion criteria were selected. The full text of papers whose abstracts did not provide sufficient information for inclusion/exclusion criteria were read.

The categories proposed for the analysis of papers were: authors, year of publication, country of origin, the definition of prosocial behavior adopted, objectives, prevention focus, study design, number of participants, target-population, age or school grade, assessment instruments, results, follow-up, professional who facilitated the intervention, theoretical perspective, category of targeted prosocial behavior, dosage or duration, components, content, and whether there was a separate curriculum. The studies' content was organized in a spreadsheet according to the previously established categories.

3. Results

The bibliographic survey resulted in 16,851 papers, 2,302 of which appeared more than once. After implementing the inclusion and exclusion criteria, 14,504 abstracts and the full texts of 24 papers were excluded, so 21 papers remained. The level of consensual agreement between the two researchers was 100%. The process of establishing the revised corpus followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) and is summarized in Figure 3.1.

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Figure 3.1. Flowchart of methodological stages to construct the revised corpus, according to the guidelines provided by PRISMA.

Identification

Total of papers identified in six databases (n = 16,851)
ERIC (n = 1,672); LILACS (n = 15); Pepsic (n = 2)
PsycINFO (n = 669); Scielo (n = 11); Scopus (n = 14,482)

Total of duplicated papers (n = 2,302)

Selection

Papers selected for reading titles and abstracts
(n = 14,549)

Abstracts excluded
(n = 14,504)
Literature reviews and other theoretical studies; empirical studies that did not include interventions; studies developing instruments; studies addressing topics that differed from this review's objective; inaccessible papers.

Eligibility

Full texts recovered to analyze eligibility
(n = 45)

Full text excluded − ineligible
(n = 24)
Studies addressing interventions at a selective or indicated level; interventions, the objective of which was not to promote prosocial behavior; studies implemented out of the school context; exclusively follow-up studies.

Inclusion

Papers included
(n = 21)

3.1 Studies' methodological characteristics

Regarding the studies' publication date, the results showed an increase from 2011 onwards, when 18 (86%) out of the 21 papers selected were published. Regarding country of origin, the studies were developed in the United States (n=4;

19%), Italy (n=4; 19%), Spain (n=2; 9.5%), Argentina, Australia, Brazil, Canada, Chile, China, France, Japan, and Tanzania. One (4.7%) paper was published in each of the last nine countries. Two studies (n=2; 9.5%) addressed samples from two countries: Colombia and Chile, and Argentina and Uruguay.

Regarding the definition of prosocial behavior adopted, the results show that 13 papers (61.8%) presented a definition aligned with voluntary actions intended to benefit others. Two studies (9.5%) presented examples of prosocial behaviors as the definition itself; one (4.7%) adopted a concept that differs from the remaining studies, such as following instructions and voluntary participation in class; while five (24%) studies did not provide a definition.

The studies' primary purposes were to assess the effects (n=8; 38%), efficacy (n=6; 29%), and effectiveness (n=4; 19%) of interventions intended to promote prosocial behavior; three (14%) did not specify the type of assessment performed. Of the 21 interventions addressed, seven (33%) promoted prosocial behavior as the only objective. In contrast, 14 (67%) combined the development of cognitive and social-emotional skills, resilience, quality of life, and metacognition, improved interpersonal relationships, and decreased adverse outcomes, such as disruptive behaviors and stress. Among the interventions addressed, only three (14%) reported a preventive objective. That is, besides health promotion through the strategies previously mentioned, the studies also intended to prevent or decrease aggressive behavior and bullying/victimization.

Most studies adopted the quasi-experimental design, with control (n=9; 42.9%) and experimental groups (n = 9; 42.9%), followed by pre- and posttest with a single group (n=2; 9.5%), and case study (n=1; 4.7%). Sample sizes ranged from 21 to 596 participants, with children and adolescents as the target population, enrolled in equivalent school grades, in the Brazilian context, from early childhood to high school, though mostly focused on primary and middle school. The instruments used included observation, peer nomination techniques, cognitive tasks, and standardized instruments, such as scales and inventories.

Regarding the interventions' results, 19 (90%) presented statistically significant differences in promoting prosocial behavior between the experimental and control groups. Of these, 13 reported effects such as the development of cognitive and social-emotional skills, an increase in pleasant feelings, improved quality of interpersonal relationships at school, and improved student academic

performance, decreased aggressive behaviors, stress, anxiety, hyperactivity, and somatic complaints; and 12 (57%) studies reported data regarding effect size, which ranged from small to large.

Four studies (19%) presented statistical analyzes concerning variables mediating and moderating the effects of interventions. The studies show that increased prosocial behaviors mediated decreased physical and verbal aggression or improved the quality of relationships between teachers and students and among students. In turn, three studies highlighted that a less elaborated repertoire of prosocial behaviors along with high measures of physical aggression at the baseline moderated the effects, positively affecting the results of interventions, while high scores obtained at baseline for prosocial behavior and the participants' high socioeconomic level negatively influenced the effects.

Additionally, six (13.3%) out of the 21 studies report follow-up data; the interval of time ranged from one to 18 months. Of these, five maintained the effects in the period, while one maintained the effects only partially. Figure 3.1.1 presents information regarding the variables of the included studies.

Figure 3.1.1. Studies' variables.

Authors / Year / Country	Definition of prosocial behavior	Objective	Preventive Focus	Design	N/Target population (Age, mean age, or school grade)	Assessment instruments	Results	Follow-up
Street, Hoppe, Kingsbury, & Ma (2004) / Australia / *The Game Factory*	Non-specified	To assess the effects of The *Game Factory* in promoting prosocial behaviors	No	Experimental, randomized controlled study	90 Students (9-12 years old)	PBQ, Rutter Pro-Social Behaviour Questionnaire	Significant differences were found between the experimental and control groups in the prosocial behavior measures ($p<0.05$).	—
Boyle & Hasset-Walker (2008) / United States / ICPS	Non-specified	To assess the effectiveness of the ICPS, the objective of which is to promote prosocial behavior and decrease aggressive behaviors	Yes	Experimental, randomized controlled study	226 Students (6-8 years old)	PSBS, HBRS	Significant differences were found between the experimental and control groups in the prosocial behavior measures [PSBS ($p = 0.000$; $\eta^2 = 0.07$, HBRS ($p = 0.000$; $\eta^2 = 0.12$]. Significant differences were also found in the aggressiveness behavior measures, namely: overt ($p = 0.008$; $\eta^2 = 0.04$) and relational aggressiveness ($p = 0.028$; $\eta^2 = 0.03$) measured through PSBS.	—

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Authors / Year / Country	Definition of prosocial behavior	Objective	Preventive Focus	Design	N/Target population (Age, mean age, or school grade)	Assessment instruments	Results	Follow-up
Ramaswamy & Bergin (2009) / United States	Behavior that benefits others	To assess the effectiveness of inductive strategies and positive reinforcement in promoting prosocial behavior	No	Quasi-experimental, with control group	98 children (3–5 years old)	OMPI, OMTB, TAII	Significant differences were found between the experimental and control groups for total prosocial behaviors (p = 0.001) and in each of the four categories: *helping, sharing, affection, and cooperation* (p = 0.001). The use of induction increased prosocial behavior scores by 144% (predominantly affection), positive reinforcement increased scores by 87% (predominantly helping and sharing), and, when both strategies were used, scores increased by 39%	—
Sliminng, Montes, Bustos, Hoyuelos, & Vio (2009) / Chile	Complying with instructions, voluntary participation during classes	To assess the efficacy of a program intended to decrease the frequency of disruptive behaviors and promote prosocial behaviors	No	Single case design	38 Students (14–16 years old)	Observation protocols; questionnarie	The frequency of mild, moderate, and disruptive behaviors decreased from 80%, 40%, and 30%, at the baseline to 40%, 10%, and 0%, respectively, at the end of the intervention's second phase. Complying with instructions and voluntary participation during classes increased from 10% and 60% respectively at baseline to 90% and 80% at the end of the intervention's second phase. The results remained during follow-up.	One month
Romersi, Martínez-Fernández, & Roche (2011) / Spain / PMIP	Voluntary behavior that benefits others or promotes harmonious relationships with others	To analyze the effects of a program intended to promote prosocial behaviors among adolescents	No	Quasi-experimental, with control group	198 adolescents (14.49 years old on average)	CPE, CCPE	Significant differences were found between the experimental and control groups in total prosocial behaviors (p<0.05; d = 0.18), and in ten categories, with size effects ranging from d = 0.02 (*verbal help* category) to d = 0.29 (*solidarity* category), along with improved classroom climate perception (p<0.01; d = 0.27).	—

Figure 3.1.1. Studies' variables.

Authors / Year / Country	Definition of prosocial behavior	Objective	Preventive Focus	Design	N/Target population (Age, mean age, or school grade)	Assessment instruments	Results	Follow-up
Schonert-Reichl, Smith, Zaidman-Zait, & Hertzman (2012) / Canada / ROE	Behaviors and characteristics such as cooperativeness, helpfulness, trustworthiness, and kindness.	To assess the ROE effects, a program focused on decreasing aggressive behaviors and developing social and emotional understanding and prosocial behaviors	Yes	Quasi-experimental, with control group	585 Students (4th to 7th grade)	IFEEL, IRI, Peer Nomination, CBS	Significant differences were found between the experimental and control groups and control in the understanding of emotional states ($p<0.01$, $d = 0.26$) and peer nominations of prosocial behaviors (five dimensions) ($p<0.001$), while size effects ranged from $d = 0.28$ (cooperation) to $d = 0.79$ (fairness). Significant differences were also found between the groups in aggressive behavior measures ($p<0.001$) – decreased proactive aggressiveness ($d = 0.53$) and relational aggressiveness ($d = 0.36$). No differences were found regarding empathy and perspective-taking measures.	—
Caprara et al. (2014) / Italy / CEPIDEA	Voluntary behaviors intended to benefit others.	To assess the effects of an intervention intended to promote prosocial behaviors in early adolescence	No	Quasi-experimental, with control group	324 Students (12.4 years old on average)	AGR, ESE, Questionnaires addressing prosocial behavior, aggressive behaviors, and academic performance measures	Significant differences were found between the experimental and control groups ($p<0.05$) in terms of increased helping behavior ($d = 0.22$) and decreased physical ($d = -0.44$) and verbal aggression ($d = -0.18$). Increased helping mediated a decline in verbal aggression ($p = 0.020$, 95%CI = −0.102, −0.001). The results remained in the follow-up period. Having participated in the intervention predicted improved academic performance at the end of the 8th grade ($p = 0.000$).	12 months
Pajares, Aznar-Farias, Tucci, & Oliveira-Monteiro (2015) / Brazil / PMIP	Actions mainly intended to benefit others	To assess prosocial behaviors among adolescent students by applying PMIP	No	Pre- and posttest with one group	21 Students (9th grade)	EAP-A	No significant changes were found in prosocial behaviors and positive climate before and after the intervention.	—

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Authors / Year / Country	Definition of prosocial behavior	Objective	Preventive Focus	Design	N/Target population (Age, mean age, or school grade)	Assessment instruments	Results	Follow-up
Wang, Couch, Rodriguez, & Lee (2015) / United States / Bullying Literature Project	Non-specified	To assess the effectiveness of the Bullying Literature Project in increasing prosocial behaviors, social-emotional resources, peer friendship, and decreasing involvement in bullying/ victimization	Yes	Quasi-experimental, with control group	168 Students (3rd and 4th grades)	VPBS, CMS, CSBS-TF, SEARS, Social Validity Scale	Significant differences were found between the experimental and control groups in the prosocial behavior measures ($p<0.001$). No changes were found in social-emotional resources, bullying, victimization or bystander experiences, or the perception of quality of friendships in the classroom.	—
Caprara, Kanacri, Zuffianò, Gerbino, & Pastorelli (2015) / Italy / CEPIDEA	Voluntary behaviors intended to benefit others.	To assess the effects of an intervention designed to promote prosocial behaviors during adolescence	No	Quasi-experimental, with control group	291 Students (12.4 years old on average)	Questionnaires to assess prosocial behaviors, physical and verbal aggression, interpersonal self-efficacy beliefs, BFQ-C, and academic performance measures	Significant differences were found between the experimental and control groups, such as increased prosocial behavior measures ($p<0.01$), kindness ($p<0.01$), and beliefs of interpersonal self-efficacy ($p<0.05$), and decreased physical aggression ($p<0.01$). The increase in prosocial behaviors mediated a decline in verbal aggression ($p = 0.001$; 95%CI = − 0.245, − 0.001. Low scores concerning prosocial behavior and kindness and high physical aggression levels moderated the intervention's effects ($p<0,01$). Results were maintained in the follow-up. Having participated in the intervention predicted improved academic performance at the end of the 8th grade ($p<0.001$).	18 months

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Figure 3.1.1. Studies' variables.

Authors / Year / Country	Definition of prosocial behavior	Objective	Preventive Focus	Design	N/Target population (Age, mean age, or school grade)	Assessment instruments	Results	Follow-up
Flook, Goldberg, Pinger, & Davidson (2015) / United States / KC	Non-specified	To assess the effects of a mindfulness-based intervention to promote prosocial behaviors and outcomes in self-regulation and executive functions	No	Experimental, randomized controlled study	68 children (4.67 years old on average)	TSC (prosocial behavior and emotional regulation scales), Sharing task, Delay of gratification task, DCCS task, Flanker task	Significant differences were found between the experimental and control groups in prosocial measures ($p = 0.041$), emotional regulation, ($p = 0.002$)] and sharing task ($p = 0.013$). No significant differences were found in terms of cognitive flexibility measures, inhibitory control, or delayed gratification.	—
Grazzani, Ornaghi, Agliati, & Brazzelli (2016) / Italy	Voluntary behaviors intended to promote others' wellbeing, often manifested through affection and concern	To assess the efficacy of an intervention intended to promote conversations regarding mental states, emotional understanding, and prosocial behaviors	No	Quasi-experimental, with control group	105 children (2–3 years old)	PVB, EmQue, Puppet Interview, The Desire-Emotion Task, Observation	Significant differences were found between the experimental and control groups in vocabulary measures related to emotional states ($p = 0.01$, $\eta^2 p = 0.16$), emotional understanding ($p<0.0001$, $\eta^2 p = 0.18$) and prosocial behavior among peers ($p = 0.04$, $\eta^2 p = 0.07$).	—
Umino & Dammeyer (2018) / Japan	Helping, sharing, comforting, cooperating	To implement and assess an intervention focused on prosocial behavior, quality of life, and metacognition	No	Pre- and posttest with one group	35 Students (6th grade)	Kid-KINDL, MAI	Significant differences were found in emotional wellbeing measures ($p<0.05$)] after the intervention. No significant differences were found in metacognition measures or prosocial behaviors.	—

Figure 3.1.1. Studies' variables.

Authors / Year / Country	Definition of prosocial behavior	Objective	Preventive Focus	Design	N/Target population (Age, mean age, or school grade)	Assessment instruments	Results	Follow-up
Berger, Benatov, Cuadros, VanNattan, & Gelkopf (2018) / Tanzania / ESPS	Non-specified	To assess the efficacy of an intervention intended to strengthen resilience and promote prosocial behaviors	No	Experimental, randomized controlled study	183 Students (4th to 6th grade)	Child Diagnostic Interview Schedule, DISC/DPS, SDQ, SCAS, academic performance measures, Teachers' records regarding disciplinary problems, schools' records regarding adversities	Significant differences were found between the experimental and control groups. Prosocial behaviors ($p<0.001$, $\eta^2 p$ = 0.22, CI: 0.15, 0.29) and academic performance ($p<0.05$, $\eta^2 p$ = 0.04, CI: 0.01, 0.08) increased; and a decrease was found in anxiety ($p<0.001$, $\eta^2 p$ = 0.19, CI: 0.09, 0.21) , hyperactivity ($p<0.001$, $\eta^2 p$ = 0.24, CI: 0.16, 0.31), somatic complaints ($p<0.001$, $\eta^2 p$ = 0.08, CI: 0.03, 0.13), difficulties in interpersonal relationships ($p<0.001$, $\eta^2 p$ = 0.20, CI: 0.13, 0.27) and disciplinary problems ($p<0.01$, $\eta^2 p$ = 0.04, CI: 0.01, 0.08).	8 months
Villardón-Gallego, García-Carrión, Yañez-Marquina, & Estévez (2018) / Spain	Set of behaviors that benefit others	To assess the efficacy of two dialogue-based educational strategies (DLG and IG) in promoting prosocial behaviors	No	Quasi-experimental, with control group	442 Students (4th grade)	Prosocial Behavior Scale	Significant differences were found between the experimental and control groups for the DLG strategy, *Solidarity* ($p<0.001$), and Friendship ($p<0.001$). No differences were found between the groups regarding IG.	—
Berti & Cigala (2020) / Italy	Voluntary actions intended to help or benefit others	To assess the effects of a mindfulness-based intervention to promote prosocial behaviors, self-regulation, and perspective-taking	No	Experimental, randomized controlled study	21 children (3–6 years old)	Observation, HTKS, Go/no-go task, TEC, Sally-Ann task, Unexpected content task, Visual perception tasks, Hide and Seek.	Significant differences were found between the experimental and control groups in prosocial behavior measures (p = 0.003), self-regulated inhibition processes (p = 0.043) and perspective taking (p = 0.001).	—

continues

Figure 3.1.1. Studies' variables.

Authors / Year / Country	Definition of prosocial behavior	Objective	Preventive Focus	Design	N/Target population (Age, mean age, or school grade)	Assessment instruments	Results	Follow-up
Carro, D'Adamo, & Lozada (2020) / Argentina	Behavior intended to benefit others	To assess whether a mindfulness-based intervention, socio-affective tasks, and sociocognitive instances promote prosocial behaviors, positive social relationships among peers, and decrease perceived stress	No	Experimental, randomized controlled study	44 Students (6–8 years old)	Sociometric questionnaire, Universal Altruism Test, CDSI	Significant differences were found between the experimental and control groups in increased altruistic behaviors (60%, $p<0.001$), and number of positive peer nominations (40%) ($p<0.001$, $d = 0.9$). Decreased number of negative nominations (43.7%) ($p<0.05$, $d = 0.7$) and stress measures ($p<0.05$, $d = 0.5$).	—
Celume, Godstein, Besançon, & Zenasni (2020) / France	Behavior that favors social interactions	To assess the efficacy of a Drama Pedagogy intervention in promoting skills in the theory of mind, and in cooperative behavior	No	Experimental, randomized controlled study	126 Students (4th and 5th grade)	RMET–G, PD	Significant differences were found between the experimental and control groups in measures of theory of mind ($p<0.001$, $\eta^2 = 0.16$) and cooperative behavior ($p<0.001$, $\eta^2 = 0.19$).	
Kanacri et al. (2020) / Colombia (CEPIDEA) and Chile (ProCiviCo)	Voluntary and intentional behavior intended to benefit other people.	To assess the effect of CEPIDEA, in its cultural adaption to Colombia and Chile (called ProCiviCo), in promoting prosocial behavior and decreasing aggressive behaviors.	No	Experimental, randomized controlled studies	Chile: 596 Students (12.29 years old on average) Colombia: 320 Students (12.78 years old on average)	Prosociality Scale, Physical and Verbal Aggression Scale, SES	Significant differences were found between the experimental and control groups in the Chilean sample regarding prosocial behavior measures ($p<0.001$, $d = 0.298$ [95ICI: 0.123, 0.473]). The baseline scores concerning prosocial behavior and socioeconomic level moderated the intervention's effects in the Colombian sample. Only participants with low scores at the baseline presented a significant increase compared to the control group ($p = 0.009$). An increase in prosocial behaviors mediated a decline in physical aggression in Chile ($p<0.001$, 95%CI: –0.03, 0.002]) and Colombia ($p<0.001$, CI: –0.210, –0.031).	—

Figure 3.1.1. Studies' variables.

Authors / Year / Country	Definition of prosocial behavior	Objective	Preventive Focus	Design	N/Target population (Age, mean age, or school grade)	Assessment instruments	Results	Follow-up
Mesurado et al. (2020) / Argentina and Uruguai / Hero	Behavior intended to benefit others	To assess the efficacy of an online program in promoting prosocial behaviors and related variables (empathy, positive feelings, and forgiveness)	No	Experimental, randomized controlled study	Argentina: 579 Students (12–15 years old) Uruguai: 330 Students (12–15 years old)	Prosocial Behavior toward Different Targets Scale, Empathy Questionnaire, Positive Emotions Questionnaire, Forgiveness Scale	Significant differences were found between the experimental and control groups in prosocial behaviors toward internationals [Argentina ($p<0.01$, $\eta = 0.01$); Uruguai ($p<0.001$, $\eta = 0.08$)], friends [Argentina ($p<0.001$, $\eta = 0.06$); Uruguai ($p<0.01$, $\eta = 0.02$)], and relatives [Argentina ($p<0.001$, $\eta = 0.02$); Uruguai ($p<0.01$, $\eta = 0.02$)]. Increase in emotional contagion measures [Argentina ($p<0.001$, $\eta = 0.02$); Uruguai ($p<0.001$, $\eta = 0.03$)], emotional awareness [Argentina ($p<0.001$, $\eta = 0.02$)], empathy [Argentina ($p<0.001$, $\eta = 0.02$)] and perspective taking [Uruguai ($p<0.001$, $\eta = 0.03$)]. An increase was found in serenity measures [Argentina ($p<0.001$, $\eta = 0.02$)], joy [Uruguai ($p<0.05$, $\eta = 0.01$)] and satisfaction [Uruguai ($p<0.01$, $\eta = 0.02$)]. Positive feelings toward the offender increased [Argentina ($p<0.05$, $\eta = 0.01$; Uruguai ($p<0.001$, $\eta = 0.03$) and absence of negative feelings [Uruguai ($p<0.01$, $\eta = 0.02$]. Prosocial behaviors toward friends and relatives were maintained in the follow-up.	2 and a half months

Figure 3.1.1. Studies' variables.

Authors / Year / Country	Definition of prosocial behavior	Objective	Preventive Focus	Design	N/Target population (Age, mean age, or school grade)	Assessment instruments	Results	Follow-up
Yao & Wong (2020) / China / Dizi Gui	Broad category of behaviors that generally benefit others	To assess the effectiveness of Dizi Gui intervention in promoting prosocial behaviors and improving teacher-student and peers relationships	No	Quasi-experimental, with control group	242 Students (5th grade)	CYCY-PRS, PRS-SF, Child Behavior Scale, TSRI	Significant differences were found between the experimental and control groups in prosocial behavior measures ($p<0.001$, η^2 = 0.08), peer relationship ($p<0.001$, η^2 = 0.10) and between students and teachers ($p<0.001$, η^2 = 0.05). Increased prosocial behaviors mediated a decrease in peer conflict ($p<0.001$; η^2 = 0.1707, 95%CI: 0.0898, 0.2754) and between students and teachers ($p<0.001$; η^2 = 0.2746, 95%CI: 0.1373, 0.4157). The results remainined in the follow-up.	2 months

PBQ: Prosocial Behavior Questionnaire; ICPS: I Can Problem Solve; PSBS: Preschool Social Behavior Scale; HBRS: Hahnemann Behavior Rating Scale; *p*: valor p; η^2p: eta-squared [measure of effect size, according to Cohen (1988): small: 0.02; moderate: 0.13; large: 0.26]; OMPI: Observational Measure of Prosocial Incidents; OMTB: Observational Measure of Teacher Behavior; TAII: Teacher Assessment of Intervention Implementation; PMIP: *Programa Mínimo de Incremento Prosocial*; LIPA: *Laboratorio de Prosocialidad Aplicada da Universidade Autônoma de Barcelona*; CPE: *Cuestionario Prosocial Escolar*; CCPE: *Cuestionário Clima Prosocial Escolar*; *d*: Cohen's d [measure of size effect according to Cohen (1988): small: 0.20; moderate: 0.50; large: 0.80)]; IFEEL: Infant Facial Expression of Emotion; IRI: Interpersonal Reactivity Index; CBS: Child Behavior Scale; ROE: Roots of Empathy; KC: Kindness Curriculum; CEPIDEA: Italian acronym for Promoting Prosocial and Emotional Skills to Counteract Externalizing Problems in Adolescence; AGR: Agreeableness; ESE: Empathic Self-Efficacy Beliefs; CI: Confidence Interval; EAP-A: *Escala de Avaliação de Prossocialidade para Adolescentes*; VPBS: The Verbal and Physical Bullying Scale-Victimization and The Verbal and Physical Bullying Scale-Perpetration-Student Version; CMS: ClassMaps-Survey; CSBS-TF: Children's Social Behavior Scale – Teacher Form; SEARS: Social Emotional Assets and Resilence Scales; BFQ-C: Big-Five Questionnaire-Children; TSC: Teacher-rated Social Competence; DCCS: Dimensional Change Card Sort; PVB: *The Primo Vocabolario del Bambino*; EmQue: The Empathy Questionnaire; η^2p: partial eta-squared [measure of size effect according to Cohen (1988): small: 0.0099; moderate: 0.0588; large: 0.1379]; Kid-KINDL: The Health-Related Quality of Life in Children and Adolescents Revised Version; MAI: Metacognitive Awareness Inventory; HTKS: Head-Toes-Knees-Shoulders; SDQ: Strenghts and Difficulties Questionnaire; ESPS: ERSAE-Stress-Prosocial; DISC/DPS: Diagnostic Predictive Scales; SCAS: Spense Anxiety Scale for Children; HTKS: Head-Toes-Knees-Shoulder Task; TEC: Test of Emotion Comprehension; CDSI: Children's Daily Sress Inventory; RMET-G: Reading the Mind in the Eyes Test, Child Version; PD: Prisoner's Dilemma; SES: Socioeconomic Status; CYCI-PRS: Community and Youth Collaborative Institute-Peer Relationships Scale, Peer Relationships Scale – Short Form; TSRI: Teacher-Student Relationship Inventory.

3.2 Interventions' characteristics

Teachers were the professionals facilitating ten (48%) of the interventions, followed by psychologists or interns of Psychology programs, teachers together with researchers, instructors qualified for the program, student inspectors, and

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researchers only. The theoretical perspectives that grounded the interventions were Cognitive and Behavioral Approaches, Social Cognitive Theory, Social-Emotional Learning, Mindfulness Construct, and Humanistic Approaches, among other frameworks from the fields of Psychology and Education. Note that eight (38%) studies adopted more than one theory, and only one (4,7%) did not explicitly report the theoretical perspective grounding the intervention.

Regarding the categories of prosocial behaviors targeted, 13 studies (62%) specified these categories, while helping, sharing, and comforting were the most frequently used. The interventions lasted from six weeks to one year, while interventions were implemented once a week in 13 (62%) studies, biweekly in one study (4,7%), three-weekly sessions in another study (4,7%), every two weeks in one study (4,7%), while five (23,8%) studies did not report how frequently interventions were implemented. Regarding components, all the interventions (100%) involved practices or tasks with students, 13 (62%) provided training to the facilitators before implementation, and three studies provided support throughout the process. Only one (4,7%) intervention was implemented online.

Content that composed the interventions was related to values, models, prosocial behavior, perspective-taking skills, social-emotional components, problem-solving skills, mindfulness, cooperative strategies, positive feelings (e.g., gratitude, joy, serenity), and moral behavior. Eighteen (86%) interventions had a curriculum to be added to the school planning. In comparison, three (14%) interventions did not establish a specific number of sessions, lessons, or tasks. Instead, they included cognitive or behavioral techniques or instructions to be adopted by educators toward students at different times during the daily routine. Figure 3.2.1 presents information regarding the interventions' variables.

Figure 3.2.1. Interventions' variables.

Authors / Year / Country	Applicator	Theoretical Perspective	Target prosocial behavior category	Dosage or duration	Components	Content	Separated curriculum
Street et al. (2004) / Australia / The Game Factory	Researcher and Teacher	Cooperative learning	Cooperation	Six biweekly program sessions	Teachers training; students tasks	Cooperative physical games, instructions regarding the game's objectives, reinforcement of values, and prosocial interactions during games, feedback, encouraging critical thinking on how actions impact processes and how cooperations and cohesion are essential for collective success.	Yes
Boyle & Hasset-Walker (2008) / United States – ICPS	Teacher	Cognitive approach	Non-specified	83 lessons biweekly	Teachers received training before and during the implementation; students tasks.	Reasoning about consequences of potential solutions, identification of thoughts, feelings, and reasons that can lead to problem situations, problem-solving skills.	Yes
Ramaswamy & Bergin (2009) / United States	Teacher	Cognitive Approach Behavior Approach	Helping, sharing, comforting, affection, cooperation	Two months	Teachers' training, coaching, consulting; interactions with children	Prosocial and aggressive behaviors, inductive strategy, and positive reinforcement.	No
Sliminng et al. (2009) / Chile	Teacher	Behavior analysis	Instructions compliance, voluntary participation in class	31 sessions	Teachers' training, interactions with students	Behavioral modification techniques.	No
Romersi et al. (2011) / Spain – PMIP	Psychology undergraduate interns or LIPA collaborators	Humanistic Approach	Physical help, physical service, sharing, verbal help, verbal comforting, confirmation and positive appreciation of others, attentive listening, empathy, solidarity, positive presence, and unity	12 weekly sessions	Students tasks	Prosocial model, prosocial actions, dialogue regarding emotions and feelings, problem-solving, design of prosocial tasks at school, and in other contexts.	Yes
Schonert-Reichl et al. (2012) / Canada – ROE	Program's instructor (community member)	Social-Emotional Learning	Sharing, cooperation, helping, kindness, perspective taking, fairness	26 lesson/ 1 year	Instructors training; Students tasks	Lessons on empathy, identification of emotions, perspective-taking, care, child development, problem-solving skills.	Yes

Figure 3.2.1. Interventions' variables.

Authors / Year / Country	Applicator	Theoretical Perspective	Target prosocial behavior category	Dosage or duration	Components	Content	Separated curriculum
Caprara et al. (2014) / Italy − CEPIDEA	Teacher	Personality Theories Development Theory Social Cognitive Theory	Helping, comforting	12 weekly sessions	Teachers training; Students tasks	Sensitization to prosocial values, emotion regulation skills, perspective-taking, interpersonal communication, precursors of civic engagement.	Yes
Pajares et al. (2015) / Brazil − PMIP	School inspector	Humanistic Approach	Physical help, physical service, giving and sharing, verbal help, verbal comforting, confirmation and positive appreciation of others, attentive listening, empathy, solidarity, positive presence, and unity	Ten weekly sessions	Students tasks	Raising awareness of the importance of a prosocial style; knowledge and analysis of proposals to improve interpersonal relationships; prossociability at different social spheres.	Yes
Wang et al. (2015) / United States − *Bullying Literature Project*	Psychologists and Psychology students	Social Cognitive Theory	Non-specified	Five weekly sessions	Students tasks	Children's literature, socio-cognitive processes, social-emotional skills, behavioral strategies for coping with bullying, and bystander intervention.	Yes
Caprara et al. (2015) / Italy − CEPIDEA	Teacher	Personality Traits Theory Development Theory Social Cognitive Theory	Helping, comforting, sharing	16 weekly sessions	Teachers training; Students tasks	Sensitization of prosocial values, emotion-regulation skills, development of empathy, perspective-taking skills, interpersonal communication, and precursors of civic engagement.	Yes
Flook et al. (2015) / United States / KC	Instructors with experience in mindfulness	Mindfulness and kindness constructs	Non-specified	12 weekly sessions	Children tasks	Children's literature, music, and teaching of concepts and practices related to paying attention to one's body, breathing, emotion regulation, gratitude, kindness, and compassion.	Yes
Grazzani et al. (2016) / Italy	Teacher	Social-Emotional Learning	Helping, comforting, sharing	Two months	Teachers training; activities with groups of 4 to 6 children	Illustrated, short storytelling, with an emotional plot, conversations about the emotion represented in the story, and prosocial behaviors necessary to solve problems.	Yes

Figure 3.2.1. Interventions' variables.

Authors / Year / Country	Applicator	Theoretical Perspective	Target prosocial behavior category	Dosage or duration	Components	Content	Separated curriculum
Umino & Dammeyer (2018) / Japan	Teacher	Non-specified	Helping	Two and a half months	Teachers training; Students tasks	Helping others, planning and assessing prosocial performance.	No
Berger et al. (2018) / Tanzania – ESPS	Teacher	Cognitive-behavioral approach Social-Emotional Learning	Non-specified	16 weekly sessions	Teachers training; Students tasks	Strategies for stress reduction, perspective-taking, empathy training, mindfulness, cultivating compassion practices.	Yes
Villardón-Gallego et al. (2018) / Spain	Teacher	Dialogic Education	Non-specified	Ten weekly sessions	Teachers training; Students tasks	DLG: reading and discussing a book; IG: math tasks to be performed by small groups.	Yes
Berti & Cigala (2020) / Italy	Instructors with experience in mindfulness	Mindfulness construct	Helping, comforting, sharing	15 three-weekly sessions	Children tasks	Paying attention to breathing and internal feelings, emotions, and bodily sensations, paying attention to the five senses, meditation, conversation about experiences.	Yes
Carro et al. (2020) / Argentina	Researcher and Teacher	Theory of Embodied Cognition	Altruism	Eight weekly sessions	Students tasks	Mindfulness, interoceptive awareness, cooperative games and strategies, empathic collaboration, perspective-taking skills, conversation circles, sharing feelings, and reflections about experienced tasks.	Yes
Celume et al. (2020) / France	Researcher	Drama Pedagogy Theory of Mind	Cooperation	Six weekly sessions	Students tasks	Collective and cooperative games, creation of scenarios without the use of words, identification training regarding what will happen in a later scene, expressing opinions and feelings toward the tasks.	Yes
Kanacri et al. (2020) / Colombia (CEPIDEA) and Chile (ProCiviCo)	Researcher and Teacher	Personality Traits Theory Development Theory Social Cognitive Theory	Non-specified	16 weekly sessions	Training at baseline and communication and regular supervision of teachers; Students tasks	Prosocial responses, emotion regulation, expression of positive emotions, empathic skills, interpersonal communication skills, civic engagement, sensitization regarding prejudices, and shared identity.	Yes

Figure 3.2.1. Interventions' variables.

Authors / Year / Country	Applicator	Theoretical Perspective	Target prosocial behavior category	Dosage or duration	Components	Content	Separated curriculum
Mesurado et al. (2020) / Argentina and Uruguay / Hero	Psychologist	Positive Psychology	Non-specified	Eight weekly sessions	Self-administered program available at a website accessed through the school's computers. A psychologist provided technical support and guidance to students during sessions	Empathy (emotional regulation, emotional contagion, emotional awareness, empathic behavior), positive emotions (gratitude, joy, serenity, satisfaction, affection), forgiveness, prosocial behaviors toward friends, family, and international individuals.	Yes
Yao & Wong (2020) / China – Dizi Gui	Teacher	Moral Education Confucian Education	Non-specified	Eight weekly sessions	Teachers training/school management/ students tasks	Dizi Gui: teaching virtues, compassion, moral skills, moral motivation.	Yes

ICPS: I Can Problem Solve; PMIP: *Programa Mínimo de Incremento Prosocial*; ROE: Roots of Empathy; KC: Kindness Curriculum; CEPIDEA: Italian acronym for Promoting Prosocial and Emotional Skills to Counteract Externalizing Problems in Adolescence; ESPS: ERSAE-Stress-Prosocial; DLG: Dialogic Literary Gatherings; IG: Interactive Groups; ProCiviCo: Promoting Prosocial Behaviour and Civic Engagement for Social Cohesion in School Settings.

4. Discussion

An increase in the number of studies addressing interventions focused on promoting prosocial behavior at schools was observed from 2004 onwards, corroborating the findings reported by Mesurado et al. (2019) and marking a new generation in the field, as noted by Eisenberg and Spinrad (2014). Regarding the authors' affiliation, even though most studies were conducted in the Northern hemisphere, there was an advance in terms of the geographical distribution of programs compared to the results reported by Mesurado et al. (2019). Thus, this review includes studies conducted in all the continents, suggesting the importance of promoting prosocial behavior in schools, regardless of cultural differences. There were also studies addressing programs initially developed in Europe and later adapted to Latin American countries.

Note that the strategy adopted here to include studies with different levels of scientific evidence, rather than only experimental or quasi-experimental studies with control groups, may have contributed to selecting a more significant number of studies. Among the studies developed in the Southern hemisphere, only one was conducted in Brazil. According to Aznar-Farias and Oliveira-Monteiro (2006), few

studies address interventions in the field of prosocial behavior in that country, which is confirmed in this review. The authors mentioned earlier also note that constructs addressed in the programs that more closely resemble the topic in Brazil include social skills and social competence.

Regarding the definition of prosocial behavior, the one aligned with Eisenberg, Fabes, and Spinrad (2006) was the most frequently used, though variations, or even no definition, were also found. According to Bergin (2018), the term prosocial behavior is often conceived from a more comprehensive perspective, such as positive social behavior, which may accrue from an expanded use and even an imprecise appropriation. The hypothesis is that this concept of the term may have been adopted by the studies that did not report a definition of prosocial behavior.

Regarding the interventions' objectives and results, in addition to prosocial behaviors, three studies also intended to decrease or deter aggression and bullying/victimization, which were classified as preventive interventions. Note that, even though the remaining studies did not identify their interventions as such, some assessed outcomes related to disruptive behaviors obtained positive results, confirming evidence reported by Mesurado et al. (2019). According to these authors, strengthening resources such as prosocial behaviors effectively prevent problem behavior in the school context.

Note that the studies addressed in this review described other effects besides the ones previously mentioned, such as the development of cognitive and social-emotional skills, improved quality of interpersonal relationships and academic performance, increased frequency of pleasant feelings, and a decrease in mental health problems. These results suggest a good cost-benefit, and therefore, are relevant for public managers making decisions on whether to adopt such interventions (Bartholomew-Eldredge et al., 2016; Spivak et al., 2015). Additionally, it is worth noting that the relationship between the promotion of prosocial behavior and the remaining outcomes is consonant with the literature regarding the potential of prosocial behaviors in establishing school environments that support the individuals' integral development (Caprara et al., 2012; Gottfredson, 2017; Roche, 2010).

The studies present significant differences concerning designs, sample sizes, and instruments used for assessments, which reveal methodological heterogeneity. This finding confirms that comparing the results among studies in the field of prosocial behavior is a challenging task. This difficulty accrues from the construct's

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conceptual diversity – partially explained by its complexity – and the fact that the instruments are based on different definitions and categorizations (Auné et al., 2014; Martí-Vilar et al., 2019), with implications for research planning.

Most of the studies were developed among students 6+ years old. In this sense, Lebel and Chafouleas (2010) conducted a literature review and reported that, despite their importance, fewer interventions are promoting prosocial behavior in early childhood education (i.e., children aged from zero to five). It may be related to the fact that knowledge regarding this topic is seldom disseminated to educators in this teaching stage. According to the authors mentioned earlier, systematic effort on the part of professionals from the Psychology field, together with researchers, educators, and families, is required to advance in the development of interventions that promote prosocial behavior in early childhood education.

Note that more than half of the studies reported that the interventions' components included tasks performed with students and training provided to the teachers before the interventions. The literature highlights that implementing evidence-based interventions in schools may be challenging, considering acceptance of studies, communication among the various stakeholders, flexibility and availability of teachers and other workers, the need to adjust the school schedule, and limited resources, among others. In this sense, knowledge regarding the context where one wishes to implement an intervention, empathy, and the establishment of collaborative partnerships, transparency, and trust is required between researchers and school community members (Marturano, Bolsoni-Silva, & Santos, 2015; Biglan, 2004).

In addition to the interventions varying in terms of theoretical perspectives, content, duration, and formats, some interventions proposed that activities were added to the regular school curriculum, while others implemented interventions throughout routine interactions. According to Van Ryzin et al. (2020), this second possibility may incur fewer costs associated with curriculum and time adaptation. Embry and Biglan (2008) defend that more straightforward practices, instead of complex interventions, might more easily be adopted and implemented by professionals in practice, favoring disseminating knowledge and the outcome of planned actions. Nonetheless, and considering that 19 out of the 21 interventions analyzed here presented positive results, the hypothesis is that different models of interventions can promote prosocial behavior at schools.

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This study's limitations include the restricted number of languages imposed on the selection of studies, time of publication, and the exclusion of inaccessible studies, which may have led to a lower number of studies. In this sense, we suggest that future reviews include papers and theses and dissertations and consider interventions focused on social-emotional skills, investigating whether the promotion of prosocial behaviors is part of their objectives, which may expand the number of studies selected.

It is also essential to consider that the growing number of evidence-based interventions conducted in recent years with children in the field of prosocial behavior indicates a process of construction and improvement of a new generation of research and represents advancement. Future research should investigate the sustainability of interventions at schools over time, compare efficacy and effectiveness between different modalities, invest in cultural adaptations, and develop and assess more interventions in countries where these interventions are still incipient, as is Brazil's case.

Finally, identifying interventions intended to promote prosocial behavior at schools in this review is expected to support managers' decision-making to plan and develop strategies according to the context involving the health and educational sectors. Additionally, this study can guide new research and support the practice of educators and psychologists working in the school context.

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Authors' notes

Iara da S. Freitas, Institute of Psychology, University of São Paulo (USP); **Gabriela Eustáquio de Oliveira,** Institute of Psychology, USP; **Vanessa da S. Lima,** Institute of Psychology, USP; **Márcia Helena da S. Melo,** Institute of Psychology, USP.

Correspondence concerning this article should be addressed to Iara da Silva Freitas, Instituto de Psicologia (bloco F, sala 19), Avenida Professor Mello Moraes, 1721, Cidade Universitária. São Paulo-SP. CEP 05508-030.

E-mail: iarafreitas.psi@gmail.com

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