

Cita: Baptista, C.; Corte-Real, N.; Regueiras, L.; Seo, G.; Hemphill, M.; Pereira, A.; Dias, C.; Martinek, T.; Fonseca, A. (2020). Teaching personal and social responsibility after school: A systematic review. *Cuadernos de Psicología del Deporte*, 20(2), 1-25

Teaching personal and social responsibility after-school: A systematic review

Enseñando responsabilidad personal y social en un contexto extracurricular: Una revisión sistemática

O Ensino da responsabilidade pessoal e social no contexto extracurricular: Uma revisão sistemática

Baptista, C.;¹ Corte-Real, N.;¹ Regueiras, L.;² Seo, G.;³ Hemphill, M.;³ Pereira, A.;⁴ Dias, C.;¹ Martinek, T.;³ Fonseca, A.¹

¹ *CIFI2D (Centre of Investigation, Formation, Innovation and Intervention in Sport), Faculty of Sport, University of Porto, Portugal;*

² *Nun'Alvres Institute, Santo Tirso, Portugal;*

³ *University of North Carolina of Greensboro, United States of America;*

⁴ *Faculty of Sport Sciences and Physical Education of Coimbra, Portugal.*

ABSTRACT

Background: Teaching Personal and Social Responsibility (TPSR) has been studied and implemented through physical activity in different backgrounds for over three decades. However, there is no systematized review in the literature concerning the after-school context.

Aim: Conducting a systematic review of literature on after-school interventions based on the TPSR model.

Methods: This study was driven by the following research questions: Which were the conclusions regarding the implementation of TPSR in after-school settings? Which research methodologies have been used to assess TPSR in after-school time settings? Which results related to TPSR were reported in after-school time settings? Cochrane protocol guidelines were followed. Papers were selected by two independent researchers, with Cohen's Kappa value of 81%.

Results and discussion: Twenty-seven papers were selected, thirteen of which were reported with high scores. Most interventions were conducted in the USA on community-based after-school programs, lasting more than nine sessions, and led by school staff who prepared physical activities for youngsters from disadvantaged communities. Most of the reported studies resorted to qualitative methodologies. Some gaps were detected, such as lack of systematization of methods, lack of validity and reliability. Personal and social benefits were found. Other results were grouped into leadership, staff-youngsters relationship, values, transference, and impact on staff lives.

We recommend future studies in the after-school context extend to extend to other countries, with more detailed descriptions of the specific used methods.

Keywords: Teaching personal and social responsibility, physical activity, TPSR Alliance, after-school.

RESUMEN

Contexto: Hace más de tres décadas, el Teaching Personal and Social Responsibility (TPSR) ha sido estudiado e implementado, a través de la actividad física, en distintos contextos. No obstante, no ha ninguna revisión sistematizada en literatura en un contexto extracurricular.

Objetivo: Llevar a una revisión sistemática de la literatura sobre intervenciones extracurriculares basadas en el modelo TPSR.

Métodos: Las preguntas de búsqueda que llevaron a este estudio fueron: ¿Cuáles las conclusiones relacionadas a la implementación del TPSR en contexto extracurricular? ¿Qué metodologías de investigación han sido utilizadas para examinar el TPSR en contexto extracurricular? ¿Qué resultados relacionados con el TPSR fueron presentados en contexto extracurricular? Han sido seguidas las orientaciones del protocolo de Cochrane. La selección de los artículos ha sido hecha por dos investigadores independientes, con valor de Kappa de Cohen de 81%.

Resultados y discusión: Han sido seleccionados veintisiete artículos, trece de los cuales han sido relatados con elevada puntuación. La mayoría de las intervenciones han sido hechas en los EEUU, en programas extracurriculares para la comunidad, con una duración superior a nueve sesiones, encabezadas por staff de la escuela prepararon actividades físicas para jóvenes de comunidades desfavorecidas. Los estudios relatados apelaron, en su mayoría, a metodologías cualitativas. Algunos errores han sido detectados como la falta de sistematización de los métodos, la falta de validez y fiabilidad. Han sido encontrados beneficios personales y sociales. Otros resultados han sido agrupados en liderazgo, relaciones entre staff y jóvenes, valores, transferencia e impacto en la vida de las personas. Se recomienda que estudios futuros en el contexto extracurricular se extiendan a otros países, con descripciones más detalladas de los métodos utilizados y exactos.

Palabras clave: Modelo de responsabilidad, actividad física, TPSR Alliance, extracurricular.

RESUMO

Contexto: Há mais de três décadas, o *Teaching Personal and Social Responsibility* (TPSR) tem sido estudado e implementado, através da atividade física, em diferentes contextos. No entanto, não há nenhuma revisão sistematizada na literatura em contexto extracurricular.

Propósito: Conduzir uma revisão sistemática da literatura sobre intervenções extracurriculares baseadas no modelo TPSR.

Métodos: As perguntas de pesquisa que conduziram este estudo foram: quais as conclusões relacionadas à implementação do TPSR em contextos extracurriculares? Que metodologias de investigação têm sido utilizadas para examinar o TPSR em contextos extracurriculares? Que resultados relacionados com o TPSR foram reportados em contextos extracurriculares? Foram seguidas as orientações do protocolo de Cochrane. A seleção dos artigos foi feita por dois pesquisadores independentes, com valor de Kappa de Cohen de 81%.

Resultados e discussão: Foram selecionados vinte e sete artigos, treze dos quais foram relatados com elevada pontuação. A maioria das intervenções foi realizada nos EUA, em programas extracurriculares para a comunidade, com uma duração superior a nove sessões, lideradas por staff da escola que preparou atividades físicas para jovens de comunidades desfavorecidas. Os estudos relatados recorreram, na sua maioria, a metodologias qualitativas. Algumas lacunas foram detetadas como a falta de sistematização dos métodos, a falta de validade e confiabilidade. Foram encontrados benefícios pessoais e sociais. Outros resultados foram agrupados em liderança, relacionamento entre staff e jovens, valores, transferência e impacto na vida pessoal.

Recomenda-se que estudos futuros no contexto extracurricular se estendam para outros países, com descrições mais detalhadas dos métodos usados e precisos.

Palavras chave: Modelo de responsabilidade, atividade física, TPSR Alliance, extracurricular

INTRODUCTION

The Teaching Personal and Social Responsibility (TPSR) model was created by Hellison (1985), based on the assumption that responsibility behaviors can be taught within the contexts of physical activity and can help youngsters adapting to transitions into adulthood.

Hellison (1995, 2003, 2011) proposed a pedagogical program based on the two following assumptions: the first assumption postulates that the instruction of life skills and values is a part of physical activity. The second assumption states that values learned in the classroom should be transferred to after-school settings.

Education values aim youngsters in sports to acquire life-appropriate behaviors, knowledges and attitudes, such as respect, tolerance and fair-play (Díaz, Manzano, Martín, Catalán & Palacios, 2018).

To achieve these values, youngsters should outperform progressively based on five levels of responsibility (Hellison, 2011): (1) respect for the rights and feelings of others (e.g., asking a student to referee a game during a session); (2) participation and effort (e.g., set achievable goals, as asking students to do five more push-ups than in the previous class, during a session); (3) self-direction (e.g., working by stations, where the instructor dedicates more time in one of the stations and the participants work independently on the other ones, during a session); (4) leadership and helping others (e.g., during a session in heterogeneous teams the ball has to touch every participant before scoring a goal) (5) transference outside the gym (e.g., asking a participant during a session to give an example of respect for others at home or in sports activities with the participants to the community). TPSR-based lessons consist of a typical format, described in detail in Hellison (2011, p. 27): a) relational time: a brief time in which the instructor interacts with participants and mentions something special to them; b) awareness talk: a more formal moment in which the instructor has a brief conversation about the responsibility levels that will be developed in the classroom and sets concrete goals; c) physical activity plan: it occupies most of the time, and all tasks have connected levels of responsibility; d) group meeting: a few minutes before finishing the session, students can express their views on the session activities and how they can be improved; e)

self-reflection time: before finishing the session, students can assess how was your performance on personal and social responsibility.

The TPSR model has had a positive impact on the individual behaviors, perceptions and attitudes of participants (Hellison & Martinek, 2006; Prieto, Delgado, Caro & Preciado, 2015). This model has been developed in different areas, such as Physical Education (PE), community programs, summer camps, and after-school sports programs (Lee & Choi, 2015; Walsh, Veri & Willard, 2015; Wright, Jacobs, Ressler, & Jung, 2016), as well as in Professional Development for Teachers (Camerino, Valero-Valenzuela, Prat, Manzano Sanchez, & Castaner, 2019) and Teacher Education (Blanco, 2015). The TPSR model has also been developed and implemented with different types of contexts, contents, ages and instructors, which suggests transference to a variety of settings (Hellison, 2003; Hellison & Walsh, 2002), as well as in different countries, such as Ireland (Gordon & Doyle, 2015); Portugal, Indonesia, Mexico and Spain (Martinek, 2009), New Zealand, Brazil, South Korea and Canada (Escartí, Wright, Pascual, & Gutiérrez, 2015); Nepal, South Africa (Forneris, Whitley, & Barker, 2013); China (Pan & Keh, 2014); and East Timor (Baptista et al., 2016).

There has been an exponential and widespread increase in the implementation of TPSR-based interventions, as well as the associated body of literature (Metzler, 2005). A factor that has contributed to this growth was the creation of an official website called TPSR Alliance. "The Alliance website mentioned earlier has been developed with feedback from many attendees at our annual conferences" (Walsh & Wright, 2016, p. 37). The first conference documents on the website (<https://www.tpsr-alliance.org>) in 2008: "The TPSR Alliance has been a space for such professional collaborations where members have been able to both benefit from and contribute to it by sharing research and practices revolving around developing responsible behaviors in youth using the teaching personal and social responsibility (TPSR) model" (Dunn, Hemphill, & Beaudoin, 2006). This website has been helpful not only for the scientific community, but also instructors (Wright, Whitley, & Sabolboro, 2012) who aim to

improve their pedagogical strategies (Escartí, Gutiérrez, Pascual, & Wright, 2013) with the goal of helping their students care for themselves and for others in the future (Wright et al., 2012).

Currently, there are some literature reviews about TPSR model-based programs (Belando, Ferriz-Morell, & Moreno-Murcia, 2012; Caballero-Blanco, Delgado-Noguera & Escartí, 2013; Casey, 2014; Hellison & Walsh, 2002; Pozo, Grao-Cruces & Pérez-Ordás, 2016).

Hellison and Walsh (2002) conducted a literature review with the purpose of evaluating the impact of the Responsibility Model on underserved youngsters, since its inception. It included 26 studies, which were categorized by review process and publication status. Most studies (19) revealed the impact on participants' improvement within the program. Other studies (11) reported the impact on the transference from the programs to participants' lives outside the program.

Authors like Belando et al. (2012) and Casey (2014) conducted a review of the pedagogical models of intervention studies in the context of physical education, as well as other sports activities, which included, among other models, the model of Personal and Social Responsibility.

Recently, other review studies have been developed with only TPSR model-based programs, such as Caballero-Blanco et al. (2013), in which they compare the different studies that have implemented the TPSR model in the USA and in Spain, as well as the systematic review study of Pozo et al. (2016) on TPSR model-based programs within PE.

As reported earlier, there are some systematic reviews about the TPSR. However, none included the analysis of implementation exclusively in after-school settings.

In conclusion, for many physical educators who implemented the TPSR model in their sessions, this model is considered a viable and effective pedagogical approach in after-school contexts. This systematic review aims to analyze the studies included in peer-reviewed journals mainly listed in a comprehensive list of over 200 publications through TPSR Alliance within the after-school context.

METHOD

Search strategy

The question formulation is an important step to begin a systematic review and it should take into account relevant elements of the research design. For this study, a systematic interpretive review was drafted, focused mainly in qualitative work, to get a scientific-humanist perspectives, and results interpretation (Fernández-Ríos & Buela-Casal, 2009), and three research questions were formulated: Which were the findings related to TPSR implementation in after-school time settings? What research methodologies have been used to examine TPSR in after school time settings? What TPSR-related outcomes were experienced by students in after school time settings?

For the theoretical basis of the present study, articles retrieved from both the TPSR Alliance website and the PsycInfo database were assessed, as the Assessment of Multiple Systematic Reviews (Shea et al., 2007) postulates that at least two different sources should be used.

For the search from the TPSR Alliance website, the reference list updated in January of 2016 was used. This reference list contains Peer-Reviewed Academic and Professional Articles on TPSR and Other Publications Related to or Supporting TPSR. An additional search was conducted using PsycInfo, on April 13, 2017. The keywords used in the search systems of the database were: "teaching personal and social responsibility" OR "responsibility model" OR "personal and social responsibility program" AND "after school".

The term "after school" was defined because it is a broader term that includes extracurricular activities (such as activities organized and structured by school teachers) and other activities in or for the community, such as clubs and leadership programs, which are very common in school implementations of the TPSR model (Martinek, 2016).

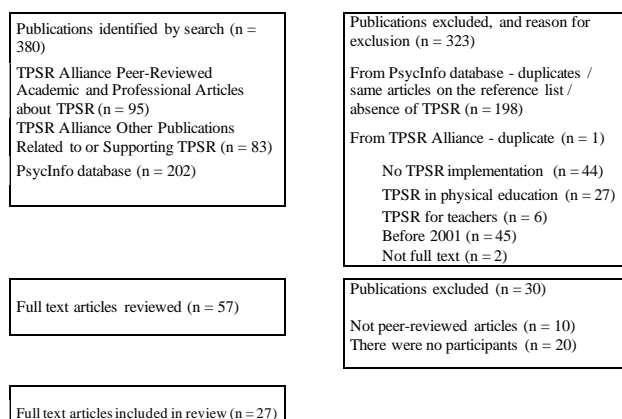
The search was narrowed to articles between 2001 and 2016, with full text and peer review. Articles retrieved from the PsycInfo database during search procedures were exported to Endnote (electronic reference software) (Endnote x7, 2014).

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The selection process of studies for eligibility and data extraction, as suggested by the Cochrane Collaboration (Figure 1) was undertaken by two independent researchers in order to avoid result bias during the selection process (Higgins & Green, 2011). Any disagreements between researchers were discussed and a consensus was reached. Thus, the following selection criteria were applied a priori: a) using the TPSR model in the intervention/ impact on children and youngsters; b) peer-reviewed articles; c) the articles must include participants of TPSR model interventions in after-school contexts; d) articles published between 2001 and January 2016. The exclusion criteria were: a) intervention conducted in a physical education context; b) no access to the full text; c) grey literature (thesis, book, book chapters), as this type of literature is not submitted for peer-review; d) articles that only described strategies of TPSR in after-school contexts.

The degree of agreement was calculated by Cohen's Kappa .83, $p < .001$ (Siegel & Castellan, 1988), exhibiting an almost perfect agreement (Landis & Koch, 1977).

Figure 1
Flow diagram of literature search



Score of studies

The criteria for the measured score of the 27 papers included studies adapted from the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) statement (Vandenbroucke et al., 2007) and the Consolidated Standards of Reporting Trials (CONSORT) statement (Moher, Schulz & Altman, 2001).

Question 1: Did the study provide a detailed description of the program implementation? '0' not included; '1' description included but it is brief and imprecise (e.g., format plan, duration, included information about participants but did not report details about activities); '2' detailed description of the activities was included.

Question 2: Did the study report the duration of the intervention? '0' it was not reported; '1' nine or less sessions; '2' between 10 and 12 or more sessions.

Question 3: Did the paper report validity and reliability. '0' not reported; '1' in quantitative studies was shown the validity and/ or reliability of the instruments. In qualitative studies was shown the validity through at least one type of triangulation (triangulation of methods, sources, triangulation of the researchers, and triangulation of the theory/perspective). '2' in quantitative studies described the steps to the validity and reliability supported in the literature. In qualitative studies was shown the validity through some sort of triangulation with the detailed description of the process of triangulation.

Question 4: Did the study report methodological design and analysis? '0' not reported; '1' in quantitative studies was shown the methods (questionnaire, direct observation), design (pre- and post-test) and the type of statistics used. In qualitative studies was shown the methods (interviews, focus group, case study, observation, documents) used in the study; '2' in quantitative studies was made a detailed description of the methods (description of the instrument), described the purpose of the application of statistics used in the study. In qualitative studies have been made description of the units of analysis (participants, groups), and a description of the category approach (deductive and inductive).

Question 5: Did the paper report findings? '0' no findings reported; '1' reported findings from authors but did not report findings from all data sources; '2' reported findings from authors and all other data sources (e.g., from interviews and questionnaires).

All questions were rated from '0' to '2', depending on the criteria, shown below in Table 1. The maximum score is 10 points.

Table 1
List of included studies with scores

Authors/ Date	Q. 1	Q. 2	Q. 3	Q. 4	Q. 5	Total Score
Beale (2012)	2	2	0	1	2	7
Bean and Forneris (2015)	2	2	2	2	2	10
Buchanan (2001)	2	1	2	2	2	9
Buckle and Walsh (2013)	2	2	0	0	1	5
Coulson, Irwin, and Wright (2012)	1	0	0	1	1	3
Hayden, Baltzell, Kilty, and McCarthy (2012)	2	2	1	2	2	9
Hellison and Wright (2003)	2	2	2	2	2	10
Lee and Martinek (2012)	1	1	2	1	1	6
Martinek and Schilling (2003)	2	2	0	1	1	6
Martinek, Schiling, and Hellison (2006)	1	-	0	1	1	3
Martinek, Schiling, and Johnson (2001)	2	2	0	2	2	8
Schilling (2001)	1	2	2	2	2	9
Walsh (2007)	2	2	0	1	1	6
Walsh (2008)	2	1	1	1	1	6
Walsh, Ozaeta, and Wright (2010)	2	2	2	2	2	10
Wright, Dyson, and Moten (2012)	1	2	1	1	1	6
Wright, et al., (2012)	2	1	0	0	1	4
Wright (2012)	2	2	0	1	0	5
Wright, White and Gaebler-Spira (2004)	2	2	1	2	2	9
Whitley (2011)	2	1	0	0	1	4
Hammond-Diedrich and Walsh (2006)	2	1	1	2	2	8
Schilling (2007)	1	0	0	2	2	5
Lee and Martinek (2009)	1	1	1	2	2	7
Forneris et al. (2013)	1	0	0	0	1	2
Newton, Watson, Kim, and Beacham (2006)	2	1	0	2	2	7
Bean, Kendellen, and Forneris (2016)	2	2	0	2	2	8
Whitley and Gould (2011)	2	1	0	0	1	4

RESULTS

The results will be presented in Table 2, which includes information regarding the authors and year, focus, local and duration of the program, context and physical activity, participants in the program, study sample, control group, study type, measurement instrument, design, data analysis, and results. They will also be described in three sections, according to the research questions.

Which were the findings related to TPSR implementation in after school time settings?

Duration of the program

At least nine activity sessions are required for intervention in order to improve and facilitate the transfer (Catalano, Berglung, Ryan, Lonczak, & Hawkins, 2004; Petitpas, Cornelius, Raalte, & Jones, 2005). In the present study it was found that most of the interventions 15/27 fulfilled this assumption (Beale, 2012; Bean & Forneris, 2015; Buckle & Walsh, 2013; Forneris et al., 2013; Hayden et al., 2012; Hellison & Wright, 2003; Martinek et al., 2001; Martinek & Schilling, 2003; Schilling, 2001; Walsh, 2007, 2008; Walsh et al., 2010; Wright et al., 2012; Wright et al., 2012; Wright & Gaebler-Spira, 2004). Still, there were 8/27 who performed interventions under nine sessions (Buchanan, 2001; Hammond-Diedrich & Walsh, 2006; Lee & Martinek, 2009, 2012; Newton et al., 2006; Whitley, 2011; Whitley & Gould, 2011; Wright, 2012). However, only Whitley (2011) reported the five sessions of intervention were not sufficient to provide constructive criticism or to make an impact on the welfare (Buchanan, 2001).

Some studies (3/27) did not report the duration of the intervention (Coulson et al., 2012; Martinek et al., 2006; Schilling, 2007).

Intervention location

Most after-school interventions based on the TPSR model (25/27) were conducted in the United States of America (Bean et al., 2015; Beale, 2012; Buchanan, 2001; Buckle & Walsh, 2013; Coulson et al., 2012; Forneris et al. 2013; Hammond-Diedrich & Walsh, 2006; Hayden et al., 2012; Hellison & Wright, 2003; Lee & Martinek, 2012; Lee & Martinek, 2009; Martinek & Schilling, 2003; Martinek et al., 2006; Martinek et al., 2001; Newton et al., 2006; Schilling, 2001; Schilling, 2007; Walsh, 2007, 2008; Walsh et al., 2010; Whitley & Gould, 2011; Wright, 2012; Wright et al., 2012; Wright et al., 2012; Wright et al., 2004).

However, it was possible to find few interventions with the TPSR model in other developed countries such as Canada, Nepal and South Africa (Bean & Forneris, 2015; Forneris et al., 2013; Whitley, 2011).

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Table 2 *General overview of the literature review*

Author(s)/ year	Focus	Local/ Duration of the program	Context/ Physical activity	Participants in the program	Methodological design						Results
					Study sample	Control group	Study type	Measurement instrument	Design (pre/ post test)	Data analysis	
Beale (2012)	Program was designed in the shape of lifeguards' course considering the skills and certification acquired during the course.	USA 192 sessions	Lifeguards' course Swimming and lifesaving skills	N = 300 Female Male 16 years old and older	N = 300 Female Male 16 years old and older	No	Qualitative assessment	Interview, Documents, Field notes Observations	No	Not reported	Students became more water safe, earned one or more American Red Cross instructional swimming certificate, and demonstrated that the program aided them inside and outside the pool.
Bean and Forneris (2015)	Examined how well the implementation of the program Girls Just Wanna Have Fun (GJWHF) followed the five levels of the TPSR model, using a time series analysis.	Canada 30 sessions	Summer camp, Fitness, Team sports	N = 12 Female 11-14 years old N = 5 staff, Female Male 28.6 years old	N = 12 Female 11-14 years old N = 5 staff, Female Male 28.6 years old	No	Quantitative assessment	Personal and Social Responsibility Questionnaire (PSRQ), Leader logbook, Group evaluation	Yes	Descriptive statistics Dependent T-Test Time series analysis Cronbach's Alpha	PSRQ results of the 12 girls showed an increase in the social responsibility of pre (M = 4.60; SD = 94) to post (M = 5.13; SD = 58), although this difference approached significance only, $t(7) = -2.17, p = .066$. On the other hand, there was a slight lack of personal responsibility of pre (M = 4.66; SD = 1.09) to post (M = 4.41; SD = 1.12), however, was not significant, $t(7) = .657, p = .532$. The staff perceived the 12 girls had improved in self-control (2.0 and 3.0), self-coaching (3.0 to 4.0) and leadership (2.0 to 4.0).
Buchanan (2001)	Examined the implementation of Hellison responsibility model (TPSR) by staff at an instructional sports camp for at-risk youngsters.	USA 5 sessions	Summer camp Fitness	N= 200 youngsters 12-13 years old N = 6 staff (3 Female and 3 Male)	N = 6 staff (3 Female and 3 Male)	No	Qualitative assessment	Interview, Observation Journal	No	Naturalistic data Emergent themes	The camp duration was too short and the model was not entirely implemented as a vehicle for well-being. While some staff members modeled the qualities that they demanded of the youngsters, others displayed inflexibility, authoritarianism, and disrespect. Strategies such as teachable moments, feedback, and reflection were used to facilitate self-awareness and empowerment.

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Author(s)/ year	Focus	Local /Duration of the program	Context/ Physical activity	Participants in the program	Methodological design						Results
					The study sample	Control group	Study type	Measurement instrument	Design (pre post test)	Data analysis	
Buckle and Walsh (2013)	Presented a strategy for educating young gang members within a responsibility- based, positive youth-development.	USA 28 sessions	After-school program Soccer	N = 2 staff (Coaches) N = not reported 12-17 years old male youngsters	N = not reported	No	Not reported	Not reported	No	Not reported	Almost all youngsters agreed that their success was significantly impacted by the coaches' ability to care for them, not giving up on them, and providing them opportunities.
Coulson, Irwin, and Wright (2012)	Described the practical inquiry framework and how it was applied by Cheryl, a full-time teacher in a recreational therapy program.	USA Not reported	Recreational therapy	N = 1 staff Female 28 years old N = 10 Male 10-14 years old	N = 1 (staff)	No	Not reported	Tool for Assessing Responsibility- based Education (TARE), TARE post- teaching reflection	No	Not reported	Staff's teaching practice became more aligned with her personal values, which increased her engagement and enthusiasm for teaching. This resulted in better engagement for many of her students, and helped them to accept responsibility for their conduct and treatment of others. This project helped her further understand the importance of promoting the transfer of life skills through physical activity.
Hayden, Baltzell, Kilty, and McCarthy (2012)	Examined TPSR in team support program, as evidenced through the presence of Hellison's four themes.	USA 72 sessions	After-school program Softball, Football, Basketball, Baseball, Soccer	N = 110 youngsters (85 Male and 25 Female) N = 20 staff (12 coaches and 8 university students)	N = 12 youths N = 20 staff	No No	Quantitative assessment Qualitative assessment	Team support protocol adherence scale (four themes) Interview	No No	Mean Standard deviation Transcribed, coded, Analyzed emergent themes	Youngsters identified the relationship with staff as factor motivating them to attend the program. The staff implemented TPSR model by including all four themes (integration, transference, empowerment and teacher-student relationship. Staff reported increased leadership.

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Author(s)/ year	Focus	Local /Duration of the program	Context/ Physical activity	Participants in the program	The study sample	Control group	Study type	Measurement instrument	Design (pre post test)	Data analysis	Results
Hellison and Wright (2003)	Investigated both the retention issue and youth development process and outcomes for two sequential physical activity extended day programs in an underserved community.	USA Between 36 and 72 sessions*	After-school program (Urban extended day) Basketball	N = 78 youngsters 10-12 years old	N = 78 youths 10-12 years old	No	Quantitative assessment	Questionnaire	No	Descriptive statistic (categorized, quantified in percentages)	The students showed development as individuals, not just basketball players, both in and out of the program. Self-report data is in line with previous research evidencing personal and social development, as well as the relevance of the relationship with a respectful and caring program leader. Retention data did not indicate unqualified success at maintaining involvement beyond the ages of 11-12, identified by extended day dropout literature. Students also tended to be suspended or transferred to alternative schools.
							Qualitative assessment	Interview	No	Inductive analysis	
Lee and Martinek (2012)	Investigated what influences the transference of responsibility-based physical activity program goals into classrooms.	USA 8 sessions	After-school program Sports	N =16 staff N = not reported 9-11 years old youngsters	N = 5 staff	No	Qualitative assessment	Interview Non-participants, Observation	Case study	Inductive analysis (three themes)	Theme 1 – the structure and atmosphere of the program played a critical role in influencing the transference of its value to the school setting. Theme 2 – desire to apply it in their current and future lives appeared to have a high level of self-confidence for transfer. Theme 3 – when staff had a structured opportunity to transfer values in school, the staff were willing to apply programs' goals to the school setting.
Martinek and Schilling (2003)	The impact that a special learning experience had on a group of urban youths.	USA 15 sessions 36 sessions	Summer camp Lay-up, Volleyball, Kicking After-school program	N = 12 staff (high school) N = not reported 8-12 years old youngsters N = 25 youngsters 4 years old	N = 12 staff (high school)	No	Qualitative assessment	Interview, Journal, Informal moments	No	Four themes	The conclusion didn't report the results from the 4 themes (personal needs, teaching skills, reciprocal learning and compassionate leadership). Some staff managed to stay on course and advance through stages, even while coping with problems, such as a dysfunctional family environment, academic failure, drug use, or sexual involvement. However, some staff, initially committed and compassionate, shifted their focus of helping others to satisfying their own needs.

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Author(s)/ year	Focus	Local /Duration of the program	Context/ Physical activity	Participants in the program	Methodological design						Results
					The study sample	Control group	Study type	Measurement instrument	Design (pre post test)	Data analysis	
Martinek et al. (2006)	Description how youth leadership evolved in two education programs.	USA Not reported	After- school program	N = 4 staff 14-19 years old	N = 4 staff 14-19 years old	No	Qualitative assessment Quantitative assessment	Interview, Reflection, Field notes Questionnaire	No	Not reported	The stages were exemplified by four case studies, which evidenced the evolution of adolescents from self-serving participants to caring and compassionate staff. Although some regression was occasionally displayed by staff, they also shifted beyond their present stage to an advanced stage. Their ease in extending their leadership and compassion to younger participants was strongly influenced by their personal lives.
Martinek et al. (2001)	The impact of a 6- month sport club and mentoring program.	USA 24 sessions	After-school program	N = 8 staff N = 16 youngsters	N = 16 youths	No	Qualitative assessment	Interview, Journal entries Journal cards	Post	Across- subject program analysis Three themes	Personal responsibility: 88% of youngsters seemed to show effort most or some of the time; 37% youngsters tried to set goals either most of the time, or some of the time, whereas the others, 63%, set them little of the time. Social responsibility: 63% of the youngsters were capable of showing respect and self-control most or some of the time in the classroom. Conversely, 37% did this little of the time and often got into trouble with the teacher or principal; 50% of youngsters were caring towards others most or some of the time. Transference: 62% of youngsters evidenced medium and high levels of transference.
Schilling (2001)	Examined underserved young participants' perceptions of commitment to an extended day physical activity program.	USA 16 sessions	After-school program	N = 7 youngsters 12-15 years old	N = 7 youths	No	Qualitative assessment	Interview	No	Inductive analysis (two themes)	Theme 1 – antecedents to commitment: young participants reported that program commitment was positively influenced by relationships with peers and staff, as well as type of activity, although the specific activity could also serve as an obstacle. Theme 2 – nature of commitment: effort and persistence were reflective of program commitment. Most participants also mentioned that having fun and enjoying the program reflected their commitment to it.

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Author(s)/ year	Focus	Local /Duration of the program	Context/ Physical activity	Participants in the program	Methodological design						Results
					The study sample	Control group	Study type	Measurement instrument	Design (pre post test)	Data analysis	
Walsh (2007)	Compared youth development outcomes of participants in a TPSR program to the same outcomes during their school day.	USA 14 sessions	After-school program Basketball	N = 10 youngsters; (9 Male and 1 Female)	N = 10 youngsters; (9 Male and 1 Female)	No	Qualitative assessment Quantitative assessment	Interview, Observations, Questionnaire (from two scales "Sense of Belonging" and "Social Support from Adults"	No	Not reported, Fit statistic, Personal reliability statistic	Quantitative: participants were positive toward both 'Coaching Club' and 'School', although there were statistically significant differences in favor of Coaching Club. School was viewed as more challenging than Coaching Club by most of the participants. Qualitative: participants were mostly supportive of both Coaching club and school, though they were able to provide more specific examples of Coaching club experiences. Overall, participants mentioned enjoying Coaching Club and wanting to spend more time there.
Walsh (2008)	Examined the combination of TPSR with the theory of possible selves.	USA 9 sessions	After-school program	N = 12 staff (7 Female and 5 Male) 13-14 years old N = 20 youngsters 10 years old	N = 12 staff	No	Qualitative assessment Quantitative assessment	Document analysis, interviews Lesson observations, observational field notes	No	Case study, Inductive analysis, Not reported	The results supported reflection related to possible futures. It was difficult to control and distinguish the impact of the regular TPSR program from added value of experiencing a career and the impact of the possible-selves theory.
Walsh et al. (2010)	Examined the degree of transference of the four primary TPSR goals from a Coaching Club program to the participants' school environment.	USA 45 sessions	After-school program Basketball	N = 13 youngsters 9-11 years old N = 3 staff	N = 13 youngsters 9-11 years old N = 3 staff	No	Qualitative assessment	Interviews observations documents	No	Case study, Inductive and deductive analysis	All young people revealed a greater understanding, growth and impact on transfer of respect the rights and feelings of others (level 1), 10 youngsters reported the transfer of their desire to work more and work together (level 2), as well as, self-employment and create goals (level 3), 11 youngsters reported the transference towards to help others and leadership (level 4) for the school environment. The three staff members confirmed with examples the levels in school environment.

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Author(s)/ year	Focus	Local /Duration of the program	Context/ Physical activity	Participants in the program	Methodological design						Results
					The study sample	Control group	Study type	Measurement instrument	Design (pre post test)	Data analysis	
Wright et al. (2012)	Descriptions of several youngsters and their experience of a community- based TPSR program and b) to use the findings to assess the program's effectiveness in terms of providing meaningful experiences to young participants.	USA 20 sessions	After-school program Martial arts	N = 16 staff 10-13 years old	N = 4 staff	No	Qualitative assessment Quantitative assessment	Interview TARE, TARE post- teaching reflection	No	Case study Inductive and deductive analysis Not reported	All participants enjoyed the club, particularly the combination of physical activity and the responsibility-based teaching strategies of TPSR, and they understood the responsibility goals and life skills taught, although they regarded them as a set of behavioral rules and guidelines. Two participants particularly enjoyed the content of the program, due to interest in martial arts and their confidence and success with psychomotor learning. TPSR was effective in providing meaningful experiences, particularly leadership and peer-coaching experiences, which were emphasized by all participants.
Wright et al. (2012)	This article aimed to outline the delivery of the TPSR program, including the challenges encountered, the successes experienced, and the lessons learned.	USA 6 sessions	Summer camp Jump rope, Badminton, Soccer and Tennis	N = 10 youngsters 8-10 years old	N = 10 youngsters 8-10 years old	No	Not reported	Not reported	No	Not reported	The participants displayed more respectful behavior over the summer. For example, during a soccer game in week 4, a girl stopped the play and called a time out, when one of her opponents fell down. The young displayed increased awareness for the use of the skills outside of the program.
Wright (2012)	To share the story of Y-CAP (Kung Fu Club) program with research findings.	USA 36 sessions	After-school program Martial arts	N = maximum 15 youngsters Male 10-15 years old	N = 15 youngsters	No	Qualitative assessment Quantitative assessment	Interview, TARE, TARE post- teaching reflection	No	Case study Not reported	The results of this article will be reported in full in a forthcoming.

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Author(s)/ year	Focus	Local /Duration of the program	Context/ Physical activity	Participants in the program	Methodological design						Results
					The study sample	Control group	Study type	Measurement instrument	Design (pre post test)	Data analysis	
Wright et al. (2004)	Examined the application of the Personal and Social Responsibility Model (PSRM) for learners with disabilities in an adapted martial arts program.	USA 13 sessions	After-school program Martial arts	N = 12 youths Male 4-11 years old spastic diplegic cerebral palsy (with disabilities)	N = 5 youngsters	No	Qualitative assessment	Interview, Observation, Field notes, Observational check list of responsible behavior	No	Case study, Inductive analysis	Therapists reported that participants showed a willingness to undertake challenges in the program that would otherwise be considered overwhelming. Parents reported that their children showed an increased sense of ability and positive feelings (fun, excitement, enjoyment) during the program. Most participants engaged in positive social interactions, although it was not the case for all. As for therapeutic relevance, parents and therapists saw physical improvement in all but one case (young age).
Whitley (2011)	Critical elements for program success and the challenges that were faced during the design and implementation phases of the program.	South Africa 5 sessions	After-school program	N = 20 to 35 youngsters 6-14 years old	N = 20 to 35 youngsters	No	Not reported	Not reported	No	Not reported	Five sessions were just not enough time for the facilitators to understand the model and provide constructive criticism. There also have been problems of communication since the language used was not the native language and had to use a translator.
Hammond- Diedrich and Walsh (2006)	The impact of Responsibility Model (RM)-based, cross- age teaching program that brought together selected urban youth from different RM programs.	USA 8 sessions	Summer sport program	N = 8 staff Male 11-15 years old N = 40 youngsters	N = 8 staff	No	Qualitative assessment	Interview Field notes Lesson observations	No	Case study Inductive analysis	Staff improved their coaching skills and viewed themselves as effective coaches who positively impacted the fourth graders. Staff also enjoyed the time spent at the university and considered enrolling in one in the future. Staff believed the program would aid their academic performance.

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Author(s)/ year	Focus	Local /Duration of the program	Context/ Physical activity	Participants in the program	Methodological design						Results
					The study sample	Control group	Study type	Measurement instrument	Design (pre post test)	Data analysis	
Schilling (2007)	This research examined resilience processes in context through a narrative case study of Tasha.	USA Not reported	After-school program	N = 1 21 years old	N = 1 21 years old	No	Qualitative assessment	Interview	No	Case study, Inductive analysis	Though Tasha did not exhibit a resilience profile (academic and social competences), she achieved positive adaptation over a period of years, such as staying in school, setting goals, improving her parenting skills and committing to “being and doing more”.
Lee and Martinek (2009)	Analyzed how the cultural similarities and differences influenced participants’ ability to transfer program goals to their school setting.	USA 8 sessions	After-school program	N = 16 youngsters elementary school	N = 5 youths	No	Qualitative assessment	Interview, Observations	No	Inductive and deductive analysis	Participants perceived the program and school atmospheres differently, even though they focused on the same values. As a specific example, empowerment values in the program, such as respect and responsibility, were regarded as a disciplinary approach in the school setting. The transference of program values to the school setting was hindered by participants’ perceptions of cultural differences.
Forneris et al. (2013)	Presented 4 case studies of programs implemented in four different countries designed to enhance the psychosocial development of underserved youth using the TPSR.	USA 8 sessions	After-school program Basketball and soccer	Case 1. Refugee sport club (RSC); 10-14 and 14-19 years old	N = not reported staff	No	Not reported	Not reported	No	Not reported	Case 1. Strengthened the connection with the community, improving the community support for the program and students. RSC staff were responsible for developing strategies to overcome challenges, as well as increase the program impact on the young participants.
		Canada 72 sessions	After-school program soccer, rugby, yoga, hip-hop, dance and kickboxing	Case 2. The PULSE program; 13-18 years old	N = not reported	No	Not reported	Not reported	No	Not reported	Case 2. The combination of frameworks showed great potential, since the participants expressed their enjoyment of the program.

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Author(s) / year	Focus	Local /Duration of the program	Context/ Physical activity	Participants in the program	Methodological design						Results
					The study sample	Control group	Study type	Measurement instrument	Design (pre post test)	Data analysis	
Newton et al. (2006)	Examined the relationship between constructs of achievement goal theory and indices of positive sport participation in a noncompulsory physical activity setting with underserved youth in NYSP program.	Nepal	After-school program physical activity	Case 3. Project Nepal, Patan 12-14 years old	N = not reported	No	Not reported	Not reported	No	Not reported	Case 3. The Canadian and Nepalese staff emphasized learning from each other and the importance of the team approach for the program's positive impact on the Nepalese youth.
		South Africa	After-school program	Case 4. Girls and boys; Ikhaya sport program;	N = not reported	No	Not reported	Not reported	No	Not reported	Case 4. The participants improved their understanding of respect and teamwork, as well as their ability to transfer these values outside of sports contexts.
		USA	Summer camp	Soccer and Netball	N = 130 youngsters with 10-12 years old	N = 130 youngsters with 10-12 years old	No	Quantitative assessment	Task and Ego Orientation in Sport Questionnaire (TEOSQ), Perceived Motivational Climate in Sport questionnaire-2 (PMCSQ-2), Contextual Self-Responsibility Questionnaire (CSRQ)	No	Descriptive statistics of observed variables, Simple correlations coefficients among observed variables, Path analyses
Bean, Kendellen, and Forneris (2016)	The purpose of this study is to understand young females perceptions of life skills transference and identify practical strategies perceived by young people effectively facilitate the transfer.	USA	After-school program	N = 8 12 years old	N = 8 12 years old	No	Qualitative assessment	Interview	No	Inductive analysis	Female youngsters believed they were able to transfer intrapersonal skills (emotional regulation, focus and objectives), interpersonal (respect, responsibility and social skills) and physical activity skills to contexts beyond the program. One of the main strategies used to intentionally teach life skills within the program was used to present activities and provide opportunities to practice the skills.

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Author(s)/ year	Focus	Local /Duration of the program	Context/ Physical activity	Participants in the program	Methodological design						Results
					The study sample	Control group	Study type	Measurement instrument	Design (pre post test)	Data analysis	
Whitley, and Gould (2011)	This article describes a sport program for refugee children and youth in the United States based on the TPSR Model.	USA 8 sessions	After-school program Soccer, Basketball, Volleyball	Not reported	Not reported	No	Not reported	Not reported	No	Not reported	Were described some lessons learned about how to treat the young refugees seized as people and not as athletes. The creation of rules in each group was another lesson learned. One of the major obstacles encountered was in the communication the young refugees is not expressed in English. Another obstacle was the wide disparity of ages (8-18 years old). Issues have been developed and directed to the different ages during the program.

Participants profiles (from sample)

In this study, young people who teach physical activities to other young people and/ or children were called staff for being in the role of teachers but not being one, and to distinguish the name youngster, the young participants and children who received staff instruction.

Most youngsters (9/27) were considered vulnerable youngsters, due to drug abuse, use of violence, among other behaviors that may lead to social exclusion (Bean & Forneris, 2015; Buckle & Walsh, 2013; Hellison & Wright, 2003; Martinek & Schilling, 2003; Walsh et al., 2010; Whitley, 2011; Wright et al., 2012; Wright, 2012; Wright et al., 2012). The staff (10/27) were volunteers attending high school who willingly took part in intervention programs for the community (Hayden et al., 2012; Lee & Martinek, 2009, 2012; Martinek & Schilling, 2003; Martinek et al., 2006; Martinek et al., 2001; Schilling, 2001, 2007; Walsh, 2008; Hammond-Diedrich & Walsh, 2006).

Regarding gender, there is a predominance (13/27) of interventions including both female and male (Beale, 2012; Forneris et al., 2013; Hammond-Diedrich & Walsh, 2006; Hayden et al., 2012; Lee & Martinek, 2009; Lee & Martinek, 2012; Martinek et al., 2006; Newton et al., 2006; Schilling, 2001; Walsh, 2007; Walsh, 2008; Walsh et al., 2010; Whitley, 2011). However, there have been studies (3/27) targeted towards either one of genders, female (Bean & Forneris, 2015; Schilling, 2007; Wright et al., 2012) or male 5/27 (Buckle & Walsh, 2013; Coulson et al., 2012; Wright, 2012; Wright et al., 2012; Wright et al., 2004).

Some studies (5/27) did not report the genders of their participants (Buchanan, 2001; Forneris et al., 2013; Hellison & Wright, 2003; Martinek & Schilling, 2003; Martinek et al., 2001).

As for age, most interventions (11/27) focused on ages between 10 and 14 years (Bean & Forneris, 2015; Forneris et al., 2013; Hammond-Diedrich & Walsh, 2006; Hellison & Wright, 2003; Lee & Martinek, 2012; Newton et al., 2006; Schilling, 2001; Walsh, 2008; Walsh et al., 2010; Wright, 2012; Wright et al., 2012;). In some studies, the age of the participants ranged between 14 and 17 years (High school) (Beale,

2012; Martinek & Schilling, 2003; Martinek et al., 2006), or younger ages, such as participants in elementary school (4/27) (Lee & Martinek, 2009; Martinek et al., 2001; Walsh, 2007; Wright et al., 2012). Only two studies reported adult participants (Coulson et al., 2012; Schilling, 2007). Other studies reported several ages at the same time, from 12 to 17 years (Buckle & Walsh, 2013); from 4 to 11 years (Wright et al., 2004), from 10 to 19 years (Forneris et al., 2013) or from 13 to 18 years (Forneris et al., 2013).

Some authors did not specify ages, referring to their participants as “Youngsters” in their studies (Buchanan, 2001; Hayden et al., 2012; Whitley, 2011).

When studies reported an intervention within the after school programs, the number of children was higher. However, it is important to note that the number of participants is directly linked to the number of staff who implemented the program. For example, in the study by Hayden et al. (2012), in which 110 youngsters were distributed into four groups (approximately 29 children in each group), with 12 trainers and 8 university students (staff) responsible for the implementation of the program, who, in turn, were distributed among the four groups, leading to five to eight children for each responsible technician, which literature considers a small group (a maximum of 15 to 20 participants per group) (Schilling, 2001 p. 356).

Other studies about after-school programs (8/27) maintained a small group of participants (Hammond-Diedrich & Walsh, 2006; Lee & Martinek, 2009; Lee & Martinek, 2012; Martinek & Schilling, 2003; Martinek et al., 2006; Martinek et al., 2001; Schilling, 2001; Walsh, 2008). This was also evident in interventions aimed towards vulnerable youngsters (7/27) (Bean & Forneris, 2015; Walsh, 2007; Walsh et al., 2010; Whitley, 2011; Wright et al., 2012; Wright, 2012; Wright et al., 2012) or children with disabilities (Wright et al., 2004), with the exception of the studies (Beale, 2012; Buchanan, 2001; Hellison & Wright, 2003), which reported larger sample sizes.

Intervention background

The fact that this research was directed towards after school interventions allowed us to observe a certain heterogeneity among the studies. The interventions as after school programs for community (leadership)

where the students from high school prepared activities for children from disadvantaged communities that provided meaningful experiences in personal, social and sports settings for underserved children.

In most studies, the sample size agrees with Hellison (2003) and Schilling (2001); in other words, a small sample size (maximum of 20 participants). In case of an excessive number of participants, they were divided into small groups during the intervention.

Often (9/27), the evaluation of the impact of the TPSR model was mainly focused on the staff (Hayden et al., 2012; Hammond-Diedrich & Walsh, 2006; Lee & Martinek, 2012; Martinek & Schilling, 2003; Martinek, Schilling, & Hellison, 2006; Martinek et al., 2001; Schilling, 2001; Schilling, 2007; Walsh, 2008) and seldom on the participants (Lee & Martinek, 2009).

Club activities are another kind of intervention, these sports activities were normally aimed towards vulnerable youngsters (Buckle & Walsh, 2013; Forneris et al., 2013; Hellison & Wright, 2003; Whitley, 2011), and the activities consisted of clubs focusing on basketball (Coaching Club) (Walsh, 2007; Walsh et al., 2010) and martial arts (Kung Fu Club) (Wright, 2012; Wright et al., 2012), which took place over several months.

Summer Camps were types of programs characterized by lasting a short period of time, with a significant number of daily hours, and being aimed towards vulnerable youngsters. This type of intervention resorted to the use of fitness and team sports (Bean & Forneris, 2015; Buchanan, 2001), sets of activities including golf, tennis, swimming, softball and soccer (Newton et al., 2006) or, simply, different types of physical, after-school activities (Wright et al., 2012).

In other contexts, the TPSR model was also found to be adapted to very particular backgrounds, such as a Life Guard course with a certificate at the end (Beale, 2012); associated to youngsters with special needs, such as in the context of recreational therapy (Coulson et al., 2012), and in the context of spastic diplegia cerebral palsy (Wright et al., 2004).

What research methodologies have been used to examine TPSR in after-school time settings?

Type of methodology

The use of a mixed methodology that combines qualitative and quantitative methods is the most recommended in literature for this type of studies and interventions (Gorard & Makopoulou, 2012), as observed in 7/27 of the studies (Hayden et al., 2012; Hellison & Wright, 2003; Martinek et al., 2006; Walsh, 2007; Walsh, 2008; Wright, 2012; Wright et al., 2012). Most of the studies analyzed were qualitative (12/27) (Bean et al., 2016; Beale, 2012; Buchanan, 2001; Hammond-Diedrich & Walsh, 2006; Lee & Martinek, 2009; Lee & Martinek, 2012; Martinek & Schilling, 2003; Martinek et al., 2001; Schilling, 2001; Schilling, 2007; Walsh et al., 2010; Wright et al., 2004) and only two studies used a quantitative methodology (Bean & Forneris, 2015; Newton et al., 2006).

In some studies, there was no mention to the methodology used (6/27) (Buckle & Walsh, 2013; Coulson et al., 2012; Forneris et al., 2013; Whitley, 2011; Whitley & Gould, 2011; Wright et al., 2012).

The lack of scientific rigor in study methodology can be verified (Q. 3, Table 1) by the large number of studies that failed to report the validity and reliability (15/27) or just mentioned without great detail (6/27), as well as by the absence or lack of methods (6/27) and a detailed description of the methodology used in the studies (9/27).

What TPSR-related outcomes were experienced by students in after school time settings?

Outcomes

Several studies (10/27) mentioned improvements of personal and social skills, self-control, leadership. However, they didn't report how was data operationalized (Beale, 2012; Buckle & Walsh, 2013; Coulson et al., 2012; Martinek et al., 2006; Walsh, 2007; Wright et al., 2012; Wright et al., 2012; Whitley, 2011; Forneris et al., 2013; Whitley & Gould, 2011).

The results were grouped according to the characteristics of the analyzed studies, based on concepts intrinsic to the TPSR model, such as personal outcomes, social outcomes, leadership, relationship between youngsters and staff, values, transference and impact on the young people's lives.

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Personal outcomes – An improvement in young people's behavior, such as paying more attention in class and in their lives, was reported by Walsh (2007). In other studies, the personal outcomes were evidenced when ten of the thirteen participants created their own goals within and outside the program (Walsh et al., 2010), as well as, when the young people complied with the pre-established goals (Martinek et al., 2001; Schilling, 2007), thus helping them to cope with dysfunctional problems at home (Martinek & Schilling, 2003), which led to academic improvement for 75% of the participants (Wright et al., 2012).

In the particular case of Tasha (Schilling, 2007), over time, she became more independent and improved her parental functions (teenage pregnancy). Although she may have not fully achieved the personal and social skills, there was an improvement described in her own self-reporting and in the view of the researchers, in terms of her behavior and attitudes towards herself and others.

On the other hand, there was also a decrease of personal responsibility, although it was not statistically significant, at the end of the intervention (Bean & Forneris, 2015). Another study (Walsh, 2007), which compared youngsters development outcomes between young people who participated in the TPSR-based program and students from the same school who had not participated in the program, showed that students who had not participated in the program reported (statistically significant, $p < 0.05$) school being an even greater challenge, when they were approached regarding high expectations.

Social outcomes – There were studies that revealed an increase in the perception of social responsibility at the end of the intervention (Bean & Forneris, 2015), which was also proven in young people with disabilities (Wright et al., 2004). The participants exhibited self-control (Buchanan, 2001; Hammond-Diedrich & Walsh, 2006; Martinek et al., 2001) by improving their behavior at school (62% of participants) and by becoming more mature (Hammond-Diedrich & Walsh, 2006).

Another notable example of the acquisition of social skills was reported in the study by Whitley (2011), in which the young people at the end of the intervention gave more hi-fives and less negative feedback to their teammates. Care for others and willingness towards

team work was also well evidenced in the studies by Martinek et al. (2001) and Walsh et al. (2010).

On the other hand, in interventions with a shorter duration, it became apparent that, although young people exhibited some changes in their behavior, they still manifested behaviors such as not respecting their teammates by laughing at others (Buchanan, 2001).

Leadership – Leadership ability is a very present concept in the TPSR. Some studies reported a development of this ability (Hayden et al., 2012) as a great opportunity for young people to outperform (Martinek & Schilling, 2003). Often, the concept of leadership was intrinsic to the nature of the intervention program, such as the case of the staff who had to autonomously prepare and teach the sports activities to the children (8/27) (Hammond-Diedrich & Walsh, 2006; Hayden et al., 2012; Lee & Martinek, 2009; Lee & Martinek, 2012; Martinek & Schilling, 2003; Martinek et al., 2006; Schilling, 2001; Walsh, 2008).

Relationship between staff and youngsters – The relationships established between the staff from university and the staff from high school (4/27) (Buckle & Walsh, 2013; Hellison & Wright, 2003; Schilling, 2001; Walsh et al., 2010), between peers (Wright, 2012), or between staff and youngsters (Schilling, 2001) were highlighted as a very positive aspect of the program, with a mutual benefit (Hammond-Diedrich & Walsh, 2006; Martinek et al., 2006), regardless of age (Hammond-Diedrich & Walsh, 2006; Wright et al., 2004). This relationship was strengthened by the care and concern towards youngsters' lives, which motivated them not to give up (Buckle & Walsh, 2013) on their goals and made them aware of the importance of taking care of their well-being and the well-being of others (Hellison & Wright, 2003; Martinek & Schilling, 2003). The strong relationships made a difference in the most underserved children in the community (Martinek & Schilling, 2003).

Values – In the interventions, youngsters stated that the TPSR model was a facilitator of role-modeling behavior, as it was based on values such as respect for the rights and feelings of others (Schilling, 2001). Participants also showed to be more aware of the use of these skills (values) outside the program (Wright et al., 2012). Paul Wright, in his study (Wright, 2012),

reported that 70% of participants evidenced improvement regarding certain values such as honesty, care, respect and responsibility.

The participation of youngsters in value-based and task-based programs rather than ego-based programs has generally led to the development of responsibility in staff (Hammond-Diedrich & Walsh, 2006; Newton et al., 2006).

Transference – It is relevant to point out that the transfer of the values learned in the sessions is grasped and applied outside the context of the session (Hellison, 2011).

Some studies (8/27) focused on the theme download, identifying benefits and results as the transference of the values learned in the sessions to after school-settings. It was found that 62% of participants demonstrated a medium and high level of transference (Martinek et al., 2001). In other analyzed studies, participants reported that the program would help them both within and outside the intervention (Beale, 2012; Forneris et al., 2013; Hammond-Diedrich & Walsh, 2006; Lee & Martinek, 2012; Walsh et al., 2010), as these youngsters became better individuals, and not only better basketball players (Hellison & Wright, 2003), since that transference would aid them in decision making, creating aspirations and making choices for the future (Walsh, 2008).

On the other hand, two studies reported that the transference was the least visible level (subject) during the interventions (Hayden et al., 2012), and that culture, for example, due to its characteristics, also functioned as a barrier to the transference of the program values to the school setting, as is evidenced in the study by Lee and Martinek (2009), where the empowerment values in Project Effort (e.g., respect, responsibility) were perceived as a discipline approach in the school setting.

Although, there is no knowledge in the literature of instruments that measure the perception of transfer, in some cases (6/27) this was considered for interviews (Hammond-Diedrich & Walsh, 2006; Hayden et al., 2012; Lee & Martinek, 2009, 2012; Walsh, 2008; Walsh et al., 2010).

Impact on staff – A positive impact of the program on the lives of the participants, as well as their respective

communities, was reported by Forneris et al. (2013). The staff described the program as safe (Whitley, 2011), fun (Hammond-Diedrich & Walsh, 2006; Forneris et al., 2013; Schilling, 2001; Wright et al., 2012) – even more than traditional therapy (Wright et al., 2004) –, and that the content (martial arts) was in line with TPSR-based values TPSR (Wright et al., 2012; Wright et al., 2004).

Through the TPSR program, staff improved their teaching skills with children and became more familiar with college (intervention location) (Hammond-Diedrich & Walsh, 2006). Individual experiences during the interventions were reported by staff as very significant when they led a group of children, and when they worked in peer-coaching (Hammond-Diedrich & Walsh, 2006; Wright et al., 2012), because it allowed them to learn with their peers (Forneris et al., 2013).

Other evidence was reported by staff when they conveyed the desire to spend more time in the program (Hammond-Diedrich & Walsh, 2006; Walsh, 2007). With assiduous participation in the program, staff reported that it provided them with opportunities to follow through with their commitments (Schilling, 2001; Whitley, 2011).

In a more longitudinal view, the instructor with experience in leadership programs continued with TPSR-based teaching in her professional life, she was guided by values and was enthusiastic about passing them on to the children after observing positive changes in their behavior (Coulson et al., 2012).

DISCUSSION

The purpose of this study was to conduct a systematic literature review about programs based on the Teaching Personal and Social Responsibility (TPSR) model in after-school settings. This study aimed to fulfill the absence of a systematic review based on the TPSR model in after-school settings.

Similar to other more recent review studies about the TPSR model, such as Casey (2014); Caballero-Blanco et al. (2013) and Pozo et al. (2016), this study followed a protocol for systematic reviews (Coharance), obeying a specific method and selection criteria.

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Most implementations were based on after-school programs for community and continued being conducted in the United States of America, as reported by Caballero-Blanco et al. (2013). As mentioned in the introduction, TPSR model has been applied in different parts of the world. It would be interesting to apply the TPSR model also in after-school context as in intervention programs for the community, in clubs, or at summer camps involving both genders in different countries.

Regarding the design of the interventions, there was a superiority of qualitative methods, as evidenced by Caballero-Blanco et al. (2013); Hellison and Walsh (2002), and Pozo et al. (2016).

The lack of systematization in the studies, specifically in methodologic design, was evident by the lack of validity and reliability the absence of a detailed description of the methods used not to mention, in some studies as the analysis of the data. No study of qualitative nature mentioned what software is used for the treatment of the data.

It would be interesting to fill this gap in future studies. More robust and sophisticated methodologies and instruments must be developed to assess the real impact on the development of intervention programs, as in the case of the TPSR model. Scientific rigor in methodology is a critical step for the advancement of literature in TPSR model-based interventions in after-school contexts.

Regarding the outcomes, it was found that after-school programs based on the Hellison model, as Caballero-Blanco et al. (2013) reported in his review study, also provided a significant increase of personal and social responsibility. This finding was statistically demonstrated through interviews and direct behavior observation. The development of personal and social responsibility, as well as other values is, naturally, less effective in short-term implementations.

The transference of values, learned and developed during the program, despite difficult visibility, was found in some studies (Hellison & Wright, 2003; Walsh, 2008). It would be interesting to know what aspects of the intervention contributed to these changes.

The programs based on the TPSR model, due to its particular characteristics, provided opportunities for staff and youngsters to disclose and share their fears, concerns, and goals (Walsh, 2008). This is facilitated by a strong relationship between members of the program and participants, which was often referred to as an important and determinant aspect in the lives of staff from high school. This relationship was also characterized by a psychologically and physically secure environment, as reported in another review study by Pozo et al. (2016).

Finally, the after-school interventions based on the TPSR model provided significant experiences (especially in leadership) and had a positive impact on staff and youngsters who engaged in sports activities (5/27) (Bucke & Walsh, 2013; Martinek et al., 2006; Walsh, 2007; Wright et al., 2012; Hammond-Diedrich & Walsh, 2006).

Future directions

As suggested in previous review studies, (Caballero-Blanco et al., 2013; Hellison and Walsh, 2002, and Pozo et al., 2016), more studies with mixed methodologies (qualitative and quantitative), and longitudinal studies are required that can intersect several implementations of the same project, such as Project Effort (Martinek & Schilling, 2003), in order to further understand the impact of after-school programs on the lives of young people and on society in general.

Although the examined studies refer in detail to the description of the intervention program (Q1, Table 1), further studies that apply scientifically rigorous methodological design, with a more detailed description of the methods, using the validity and reliability of the study, with pre- and post-design tests are needed.

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