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## THE SOCIAL PROBLEM SOLVING INVENTORY–REVISED AS A MEASUREMENT OF INDIVIDUALS' SOCIAL PROBLEMS SOLVING: REVIEW OF MODERN LITERATURE

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### **Abstract**

*The study aimed to find out the results of modern studies (2000-2020) that adopted Social Problem Solving Inventory–Revised (SPS-R) by D’Zurilla et al. (2002). Therefore, the trends/ domains of SPS could be determined. We depended on Google Scholar as the main accessible web search engine for collecting the studies. Thirty studies were summarized in terms of country of implementation, objectives, design, participants, instruments, and results. After presenting the studies, it was shown that SPS-R was adopted to find relationships between SPS and other aspects (i.e. loneliness, anxiety, social cognitive affective aspects, stress, traumatic experience, psychological adjustment, quality of life, practice of physical activity, empathy, peace education, attachment, self-esteem, aggression, and academic achievement). In addition, SPSI-R was applied to teachers, college students, children, teenagers, parents, offenders and teachers. It was concluded that SPS, as measured by SPS-R, had been investigated in many domains and among various categories of individuals.*

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**Keywords:** *Social Problem Solving, Social Problem Solving Inventory–Revised.*

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### 1. INTRODUCTION

A social problem (SP) (or situation) could be defined as any situation or task that occurs in life and requires a response in order to have an adaptive functioning. However, there is no prompt effective response available to individuals who are confronted by that situation as there are many obstacles exist to hinder the prompt response (D’Zurill, Nezu, & Maydeu-Olivares, 2004). Consequently, to succeed in managing these everyday challenges/problems, it depends on certain number of aspects that include persons' beliefs and attitudes (problem orientation) about their own capability to find solutions for these problems as well as their real problem

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solving ability or skills (D’Zurilla, Nezu, & Maydeu-Olivares, 2002; Heppner et al., 2004; Nezu, 2004). Accordingly, SPS reflects the procedure through which individuals produce, select, and accomplish solutions to interpersonal problems occurring in daily life (D’Zurilla et al., 2004; Nezu, 2004). Discussing how to measure SPS, D’Zurilla, Nezu, & Maydeu-Olivares (2004) divided the dimensions of SPS into: (a) problem orientation, which is either Positive Problem Orientation (PPO) or Negative Problem Orientation (NPO), and (b) problem-solving styles (i.e. Rationality (RS), Impulsivity (IS, and Avoidance (AS)). These five categories were the focus of the findings of the current study as we narrowed our aims to find out the results of the modern studies (2000-2020) that adopted SPSI–R by D’Zurilla et al. (2002). By doing this, we could show the domains of investigating SPS and how and where SPSI–R by D’Zurilla et al. (2002) is used.

## 2. OBJECTIVE

The study aimed to find out the domains/trends of the studies in the field of SPS where SPSI–R by D’Zurilla et al. (2002) was the main measurement of these studies. By reviewing the results, the domains and trends of the studies of SPS could be defined. In addition, the study aimed to present a summary of the studies that adopted SPSI–R by D’Zurilla et al. (2002) for the researchers in the field of SPS to use them in their literature review and discussion part. This research could save the time of researchers in the field as it presented a sum of new studies, well summarized and well presented.

## 3. METHOD

We collected some of the modern studies of SPS based on the following limitations: (1) the studies that adopted, mainly or partly, the SPSI–R by D’Zurilla et al. (2002), and (2) the studies that were published from 2000 to 2020. We used Google Scholar as the main accessible web search engine. We managed to review (30) modern studies out of many other studies. The studies summarized in terms of country of implementation, objectives, design, participants, instruments, and results.

## 4. RESULTS

After our review to the studies on SPS that were conducted during the period from 2000 to 2020, we selected (30) studies to be summarized as follows:

No.	Study	Country	Objectives	Design	Sample	Results
1.	Yavuz & Guzel	Turkey	Studying the relationship between	Experimental design	407 Turkish	There was a positive relationship between SPS skills and communication

	(2020)		SPS skills and communication skills		education teachers	skills. In addition, SPS skills were of moderate level among the subjects of the study.
2.	Chang, et al. (2020a)	Southeast United States	Examining if SPS would work as prognostic helpfulness to loneliness in favour of distinctive modification in ill-being and well-being	Survey study	230 female students	Loneliness has a positive relationship to NPO and AS, while has negative relationship to RS.
3.	Chang, et al. (2020b)	Midwest USA	Investigating if SPS could has a positive link among the three variables: anxiety, loneliness, and depressive symptoms	Survey study	165 students attending psychology classes	NPO was completely had a mediation between anxiety and loneliness. However, NPO has a partial mediation between depressive symptoms and loneliness.
4.	Nguyen, Tran, & Nguyen (2020)	Vietnam	Measuring the three following aspects: children's social cognitive, and the skills of defining certain problems. In addition to charting the abilities of their ability to solve problems by the use of their own words	Experimental	417 elementary school students (grade 3, 4 and 5).	The elementary students had low level in their ability to solve their SP, and they needed the intervention of teachers and parents as well.
5.	Roy, Schwartz-Mette & Nangle (2020)	The United States	Examining the relationship between stress and gastrointestinal symptoms	Survey study	345 university students	There was relationship amongst SPS, stress and gastrointestinal symptoms as having poor SPS raise the stress level, and consequently worked to increase the severity level of gastrointestinal symptom.
6.	Hatam et al. (2019)	Iran	Measuring the influence of empathy training on SPS skills	quasi-experimental	9 <sup>th</sup> Iranian female graders suffering from traumatic experience	SPS skills increased, while rational style and avoidant style were improved due to the influence of empathy training.
7.	La Fuente,	Spain	Examining how stress	Survey study	336 adult	Weak SPS are positively connected to

	et al. (2019)		and SPS engaged to psychological adjustment		students	stress and negatively associated with poorer psychological adjustment (i.e., greater depressive symptoms and less life satisfaction).
8.	Kasik et al. (2018)	Hungary	Examining SPS among Hungarian underprivileged adolescents whose ages were 12, 14, and 16 years and investigating the influence of family (father and mother) on their children's SPS abilities	Survey study	382 adolescents	There were differences among Hungarian underprivileged adolescents in their NPO. The difference was significant in IS among 12 years old adolescents; in AS among 14 years old; and RS and AS among 16 years old adolescents. In addition, the influence of family affected their children's SPS, especially NPO, IS and AS.
9.	Maciejewski et al. (2018)	USA	Studying the role of neural cognitive control in the relation between negative and positive life events and depressive symptoms in adolescents	Longitudinal study	138 adolescents	Neural cognitive control acts as a protective factor such that adolescents with higher neural cognitive control are protected against depression genic effects of negative life events, whereas adolescents with lower cognitive control are at greater risk for depressive symptoms in response to negative life events.
10.	La Fuente, Chang, Cardenoso, & Chang (2018)	Spain	Examining the SPS abilities in coping strategies	Survey study	310 social work students	The useful strategies of coping were attributed to the students' PPO and RS. However, dysfunctional managing procedures were attributed to the students' NPO.
11.	Abu Hamda (2017)	Palestine	Finding out the relationship between SPS and quality of life	Survey study	304 female university students	The female students had more levels of NPO, while both; male and female had similar level in the PPO, RS, IS and AS. In addition, a negative relationship was shown between the NPO and the quality of life, a positive relationship between the rational style and the quality of life. However, negative relationship was indicated between the IS and AS in one side, and the quality of life in the other side.

12.	Sone et al. (2017)	Japan	Finding out the relationship between students' physical activity and their SPS ability	Survey study	185 students of Tohoku Fukushi University	There is a positive link between physical activity and SPS. It was found that students' who practised more physical activities had more SPS skills.
13.	Kasik and Gál (2016)	Hungary	Exploring the Hungarian fathers', mothers' and teachers' perceptions of their children's SPS	Survey study	4–6-year-olds children	Parents noticed positive orientation towards SPS among their children, unlike their teachers. Mothers and teachers have considered prosociality more typical among children, unlike fathers.
14.	Fang, Luo, Li, & Huang (2016)	China	Finding out the characteristics of SPS	Survey study	681 Chinese bachelor nursing students	There was a significant increase in positive SPS and decrease in negative SPS in final year nursing students as they experienced more practice in dealing with patients, and that enabled them to have positive orientation towards their SPS.
15.	Kasik et al. (2016)	Hungary	Examining the relationship between SPS, anxiety and empathy. In addition to, finding out the influence of parents' educational level and family composition on the adolescents' SPS	Survey study	445 Hungarian adolescents whose ages range between (12 and 16) years old	Twelve years old adolescents enjoyed PPO. However, 16 years old adolescents suffered NPO, but enjoyed RS. As for state anxiety, it was shown typical among 16-year-olds. The study also showed that NPO and AS were higher among the adolescents experienced an increase level of anxiety. Finally, the parents' educational level immensely affected their children's SPS.
16.	Kasik (2016)	Hungary	Discovering mothers', fathers', teachers' and peers' opinions regarding SPS of adolescents	cross-sectional design	459 Hungarian adolescents whose ages (10, 14, and 16) year old	Mothers see that negative orientation and avoidance style are found more typical among 16-year-old, while fathers believe that rational style and positive orientation are more typical among their children.
17.	Kabasakal et	Turkey	Finding out the effects	Experimental	142 9 <sup>th</sup>	The programme of peace education

	al. (2015)		of a programme based on peace education on the students' violence tendencies and their SPS skills	design	graders	worked to increase the students' skills of SPS and consequently the students' tendency towards violence were decreased.
18.	Kasik et al. (2014)	Hungary	Investigating the development of SPS among Hungarian adolescents during (2009–2011), and describing the nature of correlations between the judgments of evaluators (mothers, and teachers). Furthermore, examining SPS in connection to family aspects	A longitudinal study	181 Hungarian students who were 12-year-olds at the beginning and became 14 at the last time of study	NPO, RS and AS showed increasing tendency with age. However, PPO was not found to be correlated to age. The mothers' ratings indicated the same results in the domains of NPO, PPO and RS. On the contrary, the teachers' ratings showed that NPO, RS and AS have an increased tendency. As for the family factors, mothers' educational level had an effect on NPO and IS, while fathers' educational level had influence on RS in all years.
19.	Abu-Ghazal & Falwah (2014)	Jordan	Studying the relationship between the attachment pattern and SPS	Survey study	260 male and 367 female students	In general RS was the most followed style among adolescents. Furthermore, it was revealed that male students had more levels in the AS. In addition, the RS was mostly adopted among 16 and 17-year-old adolescents. A positive relation was found between the ambivalent attachment and the NPO.
20.	Lindsay et al. (2011)	UK	Assessing SPS among offenders who suffered from intellectual disability	Survey study	132 British offenders (81% of them were male, while 19% were female)	NPO, IS and RS were found in one hand, while PPO, AS were found on the other hand. The participants became more positive and less impulsive in their style and orientation towards SPS.
21.	Wilson et al. (2011)	Australia	Investigating the role of NPO and cognitive distortions in depression and anxiety intervention	Survey study	285 young adults whose ages range between 18 to 25 years old	NPO and cognitive distortions were strengthened as depressive symptoms. There were strong links between cognitive distortions, anxiety symptoms and depressive symptoms in one side, and NPO on the other side.

22.	Siu and Shek (2010)	China	Clarifying the relationship between SPS and the family well-being among Chinese adolescents	Survey study	11 to 17 years old adolescents	AS, NPO, and IS were linked to lower family functioning. On the contrary, RS and PPO were related to higher family functioning. The outcomes showed that the highest association was found in AS, which was a significant predictor of conflicts among the following: Father-daughter, mother-son, and mother-daughter.
23.	El-Ghosain (2008)	Palestine	Investigating the psychosocial development and its relationship to SPS skills	Survey study	150 male and female Palestinian adolescents whose ages (15 and 16) years old	The outcomes revealed moderate level of students' ability in both genders to solve their SP. In addition, there were no differences between the high achievers and low achievers in their ability of SPS skills.
24.	Blanchard-Fields (2007)	USA	Reviewing various studies in the field of SPS	Review study	-	The most important results in this field showed successful SPS could help adolescents relieve interpersonal stress and reduce aggressive behavior. In addition, individual's ability to balance emotion regulation with proactive instrumental strategies made them successfully solve everyday problems.
25.	Hirsch et al. (2012)	USA	Examining the combined moderating effects of life stress and loneliness on the association between SPS and suicidal behaviors	Survey study	385 college students	Only loneliness moderated the association between SPS and suicidal behaviors. Loneliness increases the strength of the association between poor problem-solving and suicidal behaviors.
26.	Elliott, et al. (2006)	USA	Examining the influence of having the skills of SPS among persons' suffering from onset spinal cord injury, and how these skills would be a predictive factor of pressure sore occurrence during the first three years after they released from hospitals	Survey study	188 individuals	SPS abilities expressively helped to predict the pressure sore occurrence. The study added that individuals with unsuccessful problem-solving abilities might be jeopardized for pressure sores.

27.	Siu and Shek (2005)	China	Finding out the link between SPS, empathy and family well-being	Survey study	1462 Chinese adolescents	Obtaining higher levels of SPS work to increase the level of empathy and consequently worked to decrease the level of personal distress.
28.	D'zurilla et al. (2003)	USA	Examining the relationship among three variables; self-esteem, SPS ability, and aggression	Survey study	205 college students	A negative relationship between aggression and SPS; reduced levels of PPO and reduced level of RS increased the level of aggression. In addition, more levels of NPO, IS, and AS were associated with more levels of hostility.
29.	Belzer et al. (2002)	USA	Investigating the relationships between trait anxiety, SPS, and worry	Survey study	353 college students	The dimensions of RS and IS were chiefly responsible for the unique association between worry and SPS. Furthermore, it was found that the students had high levels of RS, careful and systematic gathering to facts, and information about the problem.
30.	Rodríguez-Fornells & Maydeu-Olivares (2000)	Spain	Examining which dimension of the SPS measurement affects academic achievement	Survey study	263 Spanish first year college students	The dimension of impulsive/careless problem-solving was negatively related to academic achievement.

As the table showed, the domains of SPS were wide as SPSI-R by (D'Zurilla et al., 2002) was used to determine SPS characteristics. The adoption of SPSI-R by (D'Zurilla et al., 2002) was used by various scholars in different countries. This indicated that it is the mainly used measurement to check SPS among individuals.

## 5. CONCLUSIONS

By reviewing those modern studies, we can reach a conclusion of the current trends/tendencies of how the SPSI-R by (D'Zurilla et al., 2002) has been utilized, what the results of these studies were, who the sample of the studies was, how it was connected to other domains, and where the place of implementing these studies was. The study can conclude that SPS, as measured by SPSI-R by (D'Zurilla et al., 2002), was investigated in connection to the following domains: Communication skills, loneliness, ill-being and well-being, anxiety, depressive symptoms, social cognitive affective aspects, stress, gastrointestinal symptoms, traumatic experience, psychological adjustment, unprivileged adolescents, quality of life, practice of physical activity, empathy, parents' believes towards their



children, peace education, attachment pattern, pressure sore occurrence, self-esteem, aggression, and academic achievement. In addition, SPSI-R by (D'Zurilla et al., 2002) was used as a measurement to define SPS among the following categories: Teachers, college students, children, adolescents, advantaged and disadvantaged adolescents, social work students, mothers, fathers, teachers, offenders, adults, and patients. Therefore, it can be concluded that the field of SPS, as measured by SPSI-R by (D'Zurilla et al., 2002), had various investigations among wide range of individuals and topics.

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