Chapter 5

Social Skills Inventory (SSI-Del-Prette): Characteristics and Studies in Brazil

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Abstract

This chapter presents the SSI-Del-Prette, a social skills assessment instrument produced in Brazil in 2001\textsuperscript{[1]}, with satisfactory psychometric properties and online scoring, recommended by the Federal Council of Psychology \textsuperscript{[2]}. Besides its conceptual bases, the psychometric and formal characteristics of the instrument are described, including its factorial structure, examples of items and the procedure for application and scoring. At the end, the annotated bibliography about the SSI-Del-Prette is analyzed, thus illustrating its application in different contexts, with different samples and problems, including cases of anxiety and social phobia.

Introduction

Health and education professionals are increasingly interested in the assessment of social skills, especially in contexts like clinics, hospitals, health centers, schools and work environments, associated to different kinds of service delivery and different research and study foci. Among tools for this assessment, self-reported inventories stand out. Since the Social Skills Inventory (SSI-Del-Prette) was made available in Brazil in 2001 \textsuperscript{[1]}, it has been widely accepted and used among professionals and researchers from different sectors of Psychology, especially Clinical, Organizational, Educational, Community and Health Psychology.
In general, this acceptance comes with the acknowledgement that a good social skills repertoire illustrates the quality of interpersonal relations, which contributes to health, personal satisfaction, professional accomplishment and quality of life. According to a summary of literature in this field [3-8], socially competent professionals present more productive, satisfactory and long-lasting personal and professional relations, besides better physical and mental health; on the other hand, problems in the social skills repertoire tend to be associated with difficulties and conflicts in interpersonal relations, a worse quality of life and different types of psychological disorders.

Within a positive perspective, what initially motivated the construction of the SSI-Del-Prette was concern with the social skills of young adults, especially college students. Competent interpersonal relations are increasingly demanded from this population segment, due to the functions and roles they are expected to assume in society, and due to their more immediate access to the new knowledge guiding these functions. Until recently, human resource management at work valued almost solely technical competences, to the detriment of social competency in professional interactions (despite some exceptions in sales, reception, advocacy and teaching activities). The new organizational paradigms that direct the restructuring of productive activities[9] have been changing this picture, valuing the interpersonal dimension of work. To deal with the demands this context poses, new interpersonal skills are required, including management, group coordination, team leadership, management of stress and interpersonal or intergroup conflicts, problem solving, decision-making, creativity, talking in public and so on. All of these aspects are also related to further concerns with interpersonal relations as a factor of health and quality of life in the corporate context.

When considering difficulties and psychological disorders, studies on the negative effects of low social competency levels show [5] that “it can represent: (a) symptom of psychological disorders; (b) part of the effects of different disorders; (c) signs of alert to possible problems in further development cycles”. Among these disorders, the following have been mentioned: juvenile delinquency, school maladjustment, suicide and marital problems, besides clinical syndromes like depression, social panic and schizophrenia[10-12]. Some authors, like Argyle [10] assume that mental disorders mainly involve communication and interpersonal relationship problems, although it is not affirmed that deficient social skills cause or are caused by these problems.

This chapter presents the SSI-Del-Prette, starting with its baseline constructs, its content and functionality characteristics and its psychometric properties. Then, the past and ongoing studies in Brazil using the SSI-Del-Prette are briefly analyzed. Its main characteristics and applications as a psychological research and practice resource are discussed, highlighting Brazilian social phobia studies.

1. Conceptual Base and Social Skills Assessment

The conceptual bases for the SSI-Del-Prette remit to the field of Social Skills and Social Skills Training. As the authors expressed in different publications [3-8], the main constructs in this field and, thus, underlying the SSI-Del-Prette too, are social performance, social skills and social competency. They are summarized next.
Any behavior or sequence of behaviors that occurs in a social situation is considered as social performance, which can be characterized as socially competent or not.

Social competency is an evaluative attribute of this performance, which depends on its functionality and coherence with the individual’s thoughts and feelings. Social skills (SS) are those classes of behaviors that exist in the individual’s repertoire and contribute to socially competent performance.

A person often has the skills within his/her repertoire, but does not use them in different situations for different reasons, including anxiety, mistaken beliefs and difficulty to read signs in the environment. As indicated earlier [4], p. 31:

“In the dynamics of interactions, social skills are part of the components of a competent social performance. Thus, social competency qualifies the proficiency of this performance and refers to the individual’s capacity to organize thoughts, feelings and actions in function of his/her goals and values, articulating them with the environment’s immediate and mediate demands”.

Attributing social competency to a performance involves a set of criteria that have been acknowledged in the literature [3,13-16]: (a) Achievement of objectives in an interpersonal situation; (b) Maintenance or improvement of the relation with the interlocutor; (c) Maintenance or improvement of self-esteem; (d) Respect for and defense of basic human rights; (e) Search for power balance in interpersonal exchanges.

A highly elaborated repertoire of social skills means the presence of different classes of behaviors that have been referred in literature and addressed in training programs in the area. Del Prette and Del Prette [4] presented a proposal to organize the main classes and subclasses of social skills, defining each one as a guide for the assessment and the promotion of social competency. The main classes and subclasses proposed include:

- **SS of communication**: asking and answering questions, requesting feedback; gratifying/praising; giving feedback, starting, maintaining and ending conversations;
- **SS of civility**: saying please, thanking, introducing oneself, greeting, saying goodbye;
- **Assertive SS, right and citizenship**: manifesting one’s opinion, agreeing, disagreeing, asking, accepting and refusing requests, apologizing, admitting errors, interacting with authority, establishing affective and/or sexual relationships, ending a relation, expressing anger/unpleasantness, requesting behavioral changes and dealing with criticism;
- **Empathetic SS**: paraphrasing, reflecting feelings, expressing support;
- **SS of work**: coordinating groups, talking in public, solving problems, making decisions, mediating conflicts and educative social skills;
- **SS to express positive feelings**: making friends, expressing solidarity, cultivating love.

Some important additional aspects in the analysis of social skills and social competency should be taken into account. These aspects are summarized next, based on publications above mentioned:
• Social skills are situational, i.e. a person can be highly competent in one situation, but not in another. The behaviors that contribute to social competency in one situation may even be counterproductive in another. Therefore, in order to understand the psychosocial functioning and to reach a functional diagnosis that can inform possible interventions, it is important to identify the social skills the individual presents as more generalized resources and his/her skills that appear as deficient in specific situations or in a more generalized form.

• Social skills are culturally determined, i.e. the behaviors that contribute to social competency depend on cultural values and standards, although one can (and should) acknowledge that some values and rights (to life, to dignity and equality among human beings) are cross-cultural. In other words, it is culture that determines what standards of behaviors are approved, rejected or tolerated in interpersonal relations. These standards also generate expectations associated with personal characteristics (age, gender, education, health condition, social role, among others), i.e. the cultural context expects different levels of competence in function of these aspects.

• When a person or subgroup infringes on interpersonal rights, a demand is established to exercise assertiveness, whether in terms of defending rights or demanding more balanced relationships. The interlocutors may not accept the practice of assertiveness well at first but, in the medium and long term, the social group values and respects assertive people.

• Social skills are learned, commonly in an asystematic way, in relations with other people. This includes parents, the circle of friends, partner, colleagues as well as the media, all of which are important agents that promote (or restrict) the repertoire of social skills. When this acquisition does not happen naturally, however, social skills can be systematically taught, through therapeutic or preventive Social Skills Training Programs.

• The existence of an elaborated repertoire of social skills is a necessary but insufficient condition for socially competent performance. A set of personal factors (thoughts, feelings, personal values, attributions, beliefs, plans and targets) can facilitate or hamper social performance in different situations.

• Any social performance can be decomposed into smaller units and this analysis can be important to identify exactly what deficits exist and to intervene more precisely. To give an example, the ability to “deal with criticism” comprises smaller units, including: paying attention, disagreeing or agreeing, clarifying, asking or giving feedback, among others. Each of these units can also be analyzed in smaller components. To give an example, “listening attentively” includes a certain posture, visual contact and facial expression as components, which become molecular when this performance is examined.

• Assertiveness is one of the main subclasses of social skills and implies the exercise of one’s own rights and the expression of any feeling, controlling anxiety and not infringing on other people’s rights [17-19].

• Assertiveness and empathy are the most critical social skills in the field of social skills and are understood as complementary: while the former is mainly directed at one’s own need, empathy basically refers to the other person’s needs [20-21].
In general, social skills assessment procedures are based on the application of self-reported inventories, interviews and observation in natural or structured situations. Given the multidimensional nature of the social skills concept and social competency criteria, many authors [3,15,16,22] have considered these procedures complementary. Therefore, a multimodal assessment of social skills and social competency is defended [23], i.e. an assessment based on different instruments, procedures and informants, so as to cover the multiple contexts of social performance as well.

In this type of assessment, self-report inventories have been widely used because of their simplicity and easy use, including possibilities to analyze the individual’s results in relation to a normative sample, as well as intra-individual analyses among the different indicators the instrument produces.

2. General Characteristics of the SSI-Del-Prette

The SSI-Del-Prette is a self-report instrument that assesses the repertoire of social skills required in a sample of daily interpersonal situations. It is easy to apply and to score, permitting an initial identification of social skills classes and subclasses that are characterized as deficient or as available resources in the respondent’s repertoire.

Although initially validated in the college population (18 to 25 years), the SSI-Del-Prette has been used to assess the social performance of adults with secondary and higher education degrees, adolescents and college-preparatory students.

The results of the SSI-Del-Prette permit characterizing social skills deficits and resources and, based on these aspects, planning and monitoring (therapeutic or educational/preventive) intervention programs.

The SSI-Del-Prette items were elaborated based on an analysis of literature about the situations and demands covered in the social skills concept [24] and previous empirical studies among college students [25-27]. These items describe social situations in different contexts (work, leisure, family), with different types of interlocutors (colleagues, relatives, superiors) and with demands for a range of skills (talking in public, expressing positive and negative feelings, requesting a behavioral change, maintaining and ending a conversation, coping with criticism etc.).

The SSI-Del-Prette consists of a set of materials that include a manual, the application booklet and the response, scoring and interpretation forms. In addition, the editor offers a website that permits online computerized scoring, which facilitated use by professionals and researchers in the area. The manual contains a synthesis of conceptual bases on social skills, the instrument’s description, its psychometric properties, normative reference tables, studies underlying its construction and an analysis of its main applications.

The Application Booklet contains a title page with the instructions, followed by two pages with the 38 items. The items are situational-behavioral, that is, each item presents a situation (without highlights) and a possible action or reaction towards it (with highlights). The respondent is asked to estimate how frequently (s)he reacts as described in each item, considering the total number of times (s)he faced that situation.
Therefore, a five-point Likert scale is presented, ranging from never or rarely (for each 10 situations of this type, I react this way 2 times at most) to always or almost always (for every 10 situations of this type, I react this way 9 to 10 times).

In part of the items, reactions are presented that indicate social skills deficits, so that the item score is inverted when calculating the total score.

The respondent is asked to answer all questions and, in case (s)he has not gone through one of the instrument’s situations, to imagine it and answer how frequently (s)he would behave as indicated in the situation.

To minimize the “social desirability” effect, almost inevitable in self-report instruments, 15 out of 38 items were formulated in the negative sense, that is, they suggested reaction indicates a lack of skill. That is the case, for example, for item 22: “When asked by a colleague to include his name in a study done without his participation, I end up accepting despite thinking that I shouldn’t”. In these 15 items, as opposed to the others, higher frequencies are considered indicators of deficits and lower frequencies are indicators of social skills resources.

To calculate the scores, these items are inverted in the scoring process. The SSI-Del-Prette is usually self-applied, i.e. the respondent writes down his/her answers on the Response Form, according to a given scale. The evaluator may also read the items and register the respondent oral answers to each item.

The tester should guarantee the respondent understood the instructions, reading them and emphasizing that there are no correct or incorrect answers, supervising the application and checking whether the instructions were understood and if all items are being correctly answered.

On average, the respondents take approximately 30 minutes to complete the SSI-Del-Prette and the application can be either individual or in group, provided that the necessary conditions are guaranteed, i.e. all respondents should understand the instructions, answers should be kept and respondents should remain silent and in a comfortable environment.

3. Psychometric characteristics of the SSI-Del-Prette

Various psychometric studies [24,28-31] were developed in the construction process of the SSI-Del-Prette. Item analysis showed significant correlations between the item value and the total score and the discrimination indices were all positive. Internal consistency analysis produced a Cronbach’s Alpha coefficient = 0.75 and factor coefficients ranged between 0.96 and 0.74, explaining 92.75% of total data variance.

A test-retest stability study showed a high and significant correlation between the two times (r=0.90; p=0.001), and another study that tested concomitant validity with the Rathus Inventory also revealed a high and significant correlation between both instruments (r=0.79, p=0.01). Other data about the psychometric properties of the SSI-Del-Prette were included in the instrument manual [1].

Alpha factoring of the SSI-Del-Prette grouped the items into five factors, named and defined as shown in Table 1 with an example of item of each factor. These factors constitute classes of social skills, defined in behavioral-situational terms, that is, as behavioral classes that are required in certain situations.
The results of the SSI-Del-Prette include one general score and five scores corresponding to the factors. The analyses showed higher scores for men in F1 and F5, and for women in F3, besides differences in specific items. Therefore, the results, norm referenced in percentiles, are distinguished between the male and female gender.

Table 1. SSI-Del-Prette factorial structure, definition of each factor, and instances of social skills covered by each one, with an example of items

<table>
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<tr>
<th>FACTOR</th>
<th>DEFINITION</th>
<th>ITEM DESCRIPTION</th>
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<tr>
<td>F1 – Coping and self-assertion with risk</td>
<td>Skills to deal with interpersonal situations that demand the assertion and defense of rights and self-esteem, entailing the risk of an undesirable reaction by the interlocutor (possibility of rejection, objection or opposition). In other words, it is an indicator of assertiveness and control of anxiety.</td>
<td>Introducing oneself to an unknown person; addressing a partner for sexual intercourse; disagreeing from authority; disagreeing from colleagues in group; charging debt from friend; declaring loving feeling to partner; dealing with unfair criticism; returning defective product to store; keeping up conversation with strangers; asking question to acquaintances.</td>
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<td>F2 – Self-assertion in the expression of positive affect</td>
<td>Skills to express positive affect, i.e. to deal with demands to express positive affect and affirm self-esteem, which do not involve interpersonal risk or only minimal risk of an unwanted reaction.</td>
<td>Praising relatives and other people; expressing positive feeling; acknowledging compliments; defending another person in group; participating in trivial conversation.</td>
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<tr>
<td>F3 – Conversation and social confidence</td>
<td>Skills to deal with neutral social situations of approximation (in terms of positive or negative affect), with minimal risk of an unwanted reaction, mainly demanding “social rote” in conversation and good knowledge of daily relationship standards.</td>
<td>Keeping up and ending conversation in face-to-face contact; ending a telephone conversation; approaching people in position of authority; reacting to compliments; asking a favor from colleagues; rejecting abusive requests.</td>
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<tr>
<td>F4 – Self-exposure to unknown people and new situations</td>
<td>Skills of self-exposure to strangers or new situations, basically including the approach of unknown people. It is partially similar to the previous factor, but entails a greater risk of the interlocutor’s unwanted reaction.</td>
<td>Public presentations or lectures to an unknown public; asking for favors; asking questions to unknown people.</td>
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<tr>
<td>F5 – Self-control of aggressiveness</td>
<td>Skills to self-control aggressiveness in aversive situations, i.e. the ability to react to the interlocutor’s aggression, jest, lack of control), with reasonable control of anger and aggressiveness. Does not mean that unpleasantness or anger is not expressed, but this is done with some control over one’s own negative feelings.</td>
<td>Dealing with parents’ criticism and with offensive mockery or games and one item that is negatively correlated with the other two: greeting strangers. Although important for many interpersonal demands, this item was interpreted here as a characteristic – impulsiveness – that may be incompatible with the calmness and self-control assessed in this factor.</td>
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4. Additional Studies Using and About the SSI-Del-Prette

After the initial psychometric studies (mentioned above, published between 1998 and 2000), the SSI-Del-Prette was referred to in different studies, most of them Brazilian and about ten percent foreign [31-37].
In Brazil, the SSI-Del-Prette annotated bibliography included 149 studies on April, 2012\(^1\). The majority of the studies were papers published in journals (72%) and the remainder doctoral dissertations (10%), master’s theses (23%) and book chapters (9%). The distribution of these studies along the time is illustrated in Figure 1.

The studies from 1998 to 2001, previous to the publication of SSI-Del-Prette, concerned to its psychometric properties. Two years after its publication, it is registered a growing increment, with a mean of 14.1 studies per year and peaks in 2006, 2009 and 2010, up to 31 publications. The lower rates in 2011 and 2012 can be due to late publications that are yet to be registered, especially in the current year, as the survey was done in the first semester. Most of the studies that cited the SSI-Del-Prette used it as a data collection instrument (85%), and the remainder (15%) used the conceptual base of the manual or analyzed the instrument.

The studies that used the SSI-Del-Prette as an assessment instrument cover a wide range of themes, samples and problems. Three broad groups can be identified: studies aiming to correlate social skills with the sample’s positive or neutral characteristics (30%); studies that relate social skills with physical or psychological problems (27%); and studies that aimed to assess the effectiveness of interventions (22%). Besides these main groups, some studies present concomitant validation with other instruments (3%).

In the first group, as a mere example of the range of themes investigated through the SSI-Del-Prette, studies can be cited that have analyzed the correlation between social skills and personality characteristics [38-39]; marital skills or satisfaction [40-41], parent-child relation [42-43], general conditions of health and wellbeing [44], quality of life in old age [45],

\(^1\) The list is regularly updated and the full list is available at: http://www.rihs.ufscar.br/avaliacao-de-hs/ihs-del-prette/citacoes-do-ihs-del-prette.
professional practice [46]. In this group, about eight percent of the studies involved college students [31,47-53], even few were intervention and/or experimental studies [30].

The second group contains studies that analyze the correlation between social skills and different physical and psychological disorders, including depression [54], physical impairment [55], children’s behavioral problems [56], alcoholism, smoking and drug addiction [57-61], obesity [32,62], stress [63], cancer [64], visual impairment [65], Asperger’s syndrome [66], suicide [67] and Turner’s syndrome [37].

Among the studies that have used the SSI-Del-Prette to measure the effectiveness of the intervention, generally social skills training programs, it can be mentioned those involving Psychology college students [31], fibromyalgia patients [68], parents [69-73], teachers [74] and other professionals [8,9,75,76]. Some more recent studies specifically focused on psychiatric and neurological disorders [36,76-78]. Various studies have used the SSI-Del-Prette for concomitant validation with other instruments, among which the following can be highlighted: the Marital Social Skills Inventory [79], the Parental Styles Inventory [80], the Self-Efficacy Inventory [81] and the Empathy Inventory [82]. Some other studies did not use the SSI-Del-Prette in data collection but referred to it [84-85].

**Conclusion**

Some of the characteristics of the SSI-Del-Prette, which recommend its use by professionals as well as by researchers, include: (a) range of situations presented in the items, coherently with the social skills concept, grouped into general performance classes that are fundamental for satisfactory and successful relations; (b) very favorable psychometric characteristics; (c) easy use, including only 38 items and maximum time application of 30 minutes.

In the clinical and educational settings, the results produced through the use of the SSI-Del-Prette permit identifying deficient skills and the interpersonal resources that could guide objectives and intervention procedures [1,4,8]. Given its psychometric properties, the SSI-Del-Prette can be used to assess the effects of social skills training programs, as previously done in above mentioned studies. In addition, it can also be used in interventions evaluation, based on the JT Method of clinical significance and reliable change analysis [86-88], as an alternative or complement to experimental designs, including the placebo type [89-90]. In organizational environments, the identification of skills sets or items that are more elaborated or deficient permits characterizing the respondent’s profile, which can be particularly useful in staff selection, functional redistribution and human resource management in general.

Although foreign applications of the SSI-Del-Prette are more limited, at least two can be highlighted. The first is a cross-cultural study, involving Brazil, Spain and Mexico [32], and the second refers to its validation in Argentina, in a Spanish version [35], producing a similar factorial structure to the Brazilian’ original and going through further improvement in new studies in that country.

The format and contents of the SSI-Del-Prette items have been used to support the construction of other social skills assessment instruments. In Brazil, it inspired the Marital Social Skills Inventory [79] and the Social Skills Inventory for Adolescents [91]. More
recently, it was adapted to the elderly population, which demanded adjustments in the item contents [54], with ongoing psychometric studies. A checklist version was also elaborated to assess professional social skills [92]. Another important ongoing development is the construction of a specific social skills inventory for coping skills to maintain abstinence from alcohol and crack [93].

Based on the set of previous studies using the SSI-Del-Prette in Brazil, a list of established relations can be elaborated between the social skills repertoire and its positive impact on quality of life, health, wellbeing factors etc. At the same time, they ascertain the negative impact of deficits in this area and different physical and psychological disorders or problems, including stress, depression and anxiety. In addition, these studies reinforce premises like gender differences and the impact of the culture or subculture on the social skills standards that are valued, tolerated or rejected in different human development contexts and moments [7-9]. Some relations, on the other hand, have not been well established yet, demanding further research.

Specifically with regard to social phobia, the review by Angélico et al. [94] should be highlighted, who located only 16 papers in general literature, ten of which characterized the social repertoire and six assessed therapeutic interventions. According to that review, the characterization studies appointed social skills deficits associated with social phobia what indicated the need for interventions in that area, thus confirming previous study also using SSI-Del-Prette [95]. Among intervention studies, they identified the need for stricter assessment and effect control designs, with a view to enhancing the generalization of results and to clarify the possible mediating role of anxiety in this process. In a psychometric study [96], a highly significant relation was observed between the social skills repertoire of college students, assessed through the Social Skills Inventory (SSI-Del-Prette) [97], and the screening criteria of diagnostic indicators for SAD, detected using the Social Phobia Inventory (SPIN). These studies [97,98] showed that the case and non-case groups of SAD, clinically and systematically assessed, were significantly different on most items that indicated the ability to talk in public in the Social Skills Inventory (SSI-Del-Prette). They also differed concerning the general score for this skill. Therefore, the social phobia area outlines a social skills research focus in which there is a plenty of questions to be investigated. The SSI-Del-Prette can certainly represent an important tool for this purpose.

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