Title: Psychometric evaluation of the Polish version of the Support in Intimate Relationships Rating Scale – Revised (SIRRS-R)

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Psychometric evaluation of the Polish version of the Support in Intimate Relationships Rating Scale – Revised (SIRRS-R)

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BACKGROUND
Researchers are interested in studies on the importance of partner support for both the well-being of the individual in various life contexts and the marital satisfaction. The current study examined the psychometric properties of the Support in Intimate Relationships Rating Scale – Revised (SIRRS-R) developed by Barry, Bunde, Brock, and Lawrence with a Polish sample.

PARTICIPANTS AND PROCEDURE
The sample consisted of a total of 574 people in close heterosexual relationships, diverse in terms of age, sex, and education. Half of the participants were married and the other half in informal relationships, cohabiting with their partners. The duration of the relationship varied, with the average of 7 years.

RESULTS
The results of the present research indicate satisfactory psychometric properties of the Polish version of the SIRRS-R. Our findings confirm the four-factor structure of support received from the partner proposed in the original version of the SIRRS-R. The questionnaire consists of four subscales: emotional and esteem support, informational support, physical comfort, and instrumental or tangible support. The Cronbach’s α reliability for the whole scale is .94 (for the subscales it ranged from .85 to .92).

CONCLUSIONS
The Polish version of the SIRRS-R is a valid and reliable questionnaire suitable for use in research on the importance of partner support for physical and mental health of individuals in many contexts of life associated with stress, and for identifying factors contributing to marital satisfaction.

KEY WORDS
psychometric properties; questionnaire; partner support; received social support
BACKGROUND

Having close, supportive ties with others can have a significant positive effect on health, physiological response to psychological stressors (including better functioning of the immune system and reduced cardiovascular reactivity), coping with illness and stress, and promoting longevity (for reviews, see Dickerson & Zoccola, 2011; Uchino, 2006). Researchers have focused on the importance of social support for the functioning of individuals in many contexts of family life associated with stress, such as coping with serious illness and recovering (Luszczynska, Boehmner, Knoll, Schulz, & Schwarzer, 2007; Oginska-Bulik, 2013; Schwarzer & Knoll, 2007), coping with aging (Acitelli & Antonucci, 1994; Cutrona, Russell, & Rose, 1986), dealing with the consequences of divorce and successfully adjusting to post-divorce life (Amato, 2000; Kolodziej-Zaleska & Przybyla-Basista, 2016), bringing up children with special needs or disabilities (Barnett, Clements, Kaplan-Estrin, & Fialka, 2003; Findler, Jacoby, & Gabis, 2016; Kozka & Przybyla-Basista, 2018), and functioning of women during pregnancy and the postpartum period (Dunkel-Schetter, Sagrestano, Feldman, & Killingsworth, 1996; Iska & Przybyla-Basista, 2017; Maliszewska, Bidzan, Świątkowska, & Preis, 2016; Rini, Dunkel-Schetter, Hobel, Glynn, & Sanman, 2006; Negron, Martin, Almog, Balbierz, & Howell, 2013). In all these contexts of overcoming life’s hardships, social support can prove crucial for ensuring health and well-being, as well as finding effective ways of coping with stress. The abundance of opportunities to analyze the mechanisms of the impact of social support on the individuals’ quality of life (main effect, stress-buffering effect or mediating effect – Cohen & Wills, 1985; Cohen, 2004) is still an inspiration for researchers dealing with physical and mental health.

In this article, we will first review the literature on the importance of partner support in close relationships, and then focus on the description of a tool for measuring support received from the partner (SIRRS-R) in the original and Polish versions.

PARTNER SUPPORT IN CLOSE RELATIONSHIPS

The spouse is a key source of support in close relationships and often the person from whom support is sought first during crises (Cutrona, 1996a; Knoll & Schwarzer, 2012). Moreover, there is also evidence suggesting that support from other sources may not replace the lack of marriage support or partner support in an intimate relationship (for review, see Cutrona, 1996a). Social support received from a partner is particularly important in experiencing adversity, stress or crisis (Gardner & Cutrona, 2004), but it is also important when there are no particular obstacles in life and no adversities (although the research on the latter issue is very limited) (Peene & Collins, 2015).

The benefits of a supportive marriage have been the subject of numerous studies, proving not only the benefits for the physical and mental well-being of each of the spouses, but also indicating that supporting activities enrich the relationship and help maintain the marriage (Cutrona, 1996a). Partner support acts as a predictor of quality and durability of the partnership (Kiecolt-Glaser & Newton, 2001; Kurdek, 2005). For marital satisfaction, the ability to provide partner support in various everyday situations is of great importance (e.g., Sullivan, Pasch, Eldridge, & Bradbury, 1998; Kurdek, 2005). People who receive more support from a partner are more satisfied with their relationship than those who receive less support (e.g., Acitelli & Antonucci, 1994). There exist differences between wives and husbands in the perception of the significance of the supporting behavior of the spouse, which affects the assessment of marriage. The perceived adequacy of support was a stronger predictor of marital satisfaction for husbands as opposed to the amount of support. In turn, the amount of support was a much stronger predictor of marital satisfaction for wives (Lawrence et al., 2008).

Cutrona (1996b) describes four different mechanisms of the impact of social support on the quality of the marital relationship: (a) emotional support from the partner can prevent emotional withdrawal or the feeling of isolation in marriage in time of severe stress, (b) partner’s support can prevent the spouse’s depression, which can have a negative effect on marriage; (c) support may prevent emerging conflicts from escalating; and (d) supportive communication associated with emotional intimacy can strengthen the bond between partners. The importance of partner support for maintaining a good relationship between spouses requires further research in order to understand what circumstances make it difficult for partners to support each other, what kinds of support are needed by men and women (Gardner & Cutrona, 2004), and how inadequate forms of partner support (lacking vs. excessive) affect marital satisfaction (Brock & Lawrence, 2009).

CONCEPTUALIZATION OF SOCIAL SUPPORT: RECEIVED SUPPORT AND ITS MEASURES

According to Cutrona (1996a, p. 10) “social support is conceptualized most generally as responsiveness to another’s needs and, more specifically, as acts that communicate caring; that validate the other’s worth, feelings, or actions; or that facilitate adaptive coping with problems through the provision of information, assistance, or tangible resources”. The researchers analyze two main types of support: perceived available support and actual received support (Collins, Dunkel-Schetter, Lobel, & Scrimshaw, 1993; Schwar-
The growing interest in research on the support received from a partner in a marital or informal relationship was the reason for further search for an appropriate measurement tool. An interesting option was found in the Support in Intimate Relationships Rating Scale – Revised (SIRRS-R) developed by Barry, Bunde, Brock, and Lawrence (2009). We decided to adapt this particular questionnaire to the Polish conditions for several reasons. Firstly, as we have already shown, a large body of research indicates that received partner support in intimate relationships plays an important role for personal health and well-being (e.g., Uchino, 2009) and also for quality of relationships (e.g., Cutrona, 1996a; Lawrence et al., 2008; Kielcot-

The Support in Intimate Relationships Scale – Revised (SIRRS-R) developed by Barry et al. (2009) is an adapted version of the SIRRS (Dehle, Larsen, & Landers, 2001). The SIRRS-R questionnaire measures the global...
perception of support received from the partner in a close relationship in a given period of time (e.g., a given month), whereas in the original version of the SIRRS the measurement is taken every day for seven consecutive days. The SIRRS-R contains 25 items and is a shortened version of the original SIRRS questionnaire, which consisted of 48 items. When comparing these measurement tools, it should be emphasized that the original version of the SIRRS has a one-factor structure, while the SIRRS-R has a four-factor structure. Barry et al. (2009) assumed that received support is a multidimensional phenomenon that includes various types of support. The basis for their consideration of the social support structure was the multidimensional model proposed by Cutrona and Russell (1990), which includes five types of support: emotional support (providing comfort, assurance of love, friendship and devotion, providing a sense of security and belief that others do care), esteem support (strengthening the sense of competence and self-esteem), instrumental or tangible support (providing direct or indirect help in dealing with stressful situations – e.g., financial and physical assistance), informational support (providing information, giving advice), and network support or social integration (encouraging engagement in various forms of social activities, encouraging the use of family support network, friends).

Barry et al. (2009) tested the factor structure of received partner support several times, namely: one-factor structure (i.e., a unidimensional conceptualization of support), five-factor structure (proposed by Dehle for the original SIRRS questionnaire but not tested empirically) and finally a four-factor structure composed of emotional and/or esteem support, tangible support, informational support and physical comfort, the latter being a new factor as compared with Cutrona and Russell (1990). This four-factor structure turned out to be the best-fit model. Barry et al. (2009) stated that from the four factors, three of them – emotional and/or esteem support, tangible support, and informational support – were among those listed by Cutrona and Russell (1990). They also found that received emotional support and esteem support were not two separate factors but constituted one common factor.

The new factor “physical comfort” resulted from the confirmatory factor analysis by Barry et al. (2009). “Physical comfort”, containing statements such as “he or she” (kissed me” or “held my hand”, emerged as a separate factor independent of the “emotional support” factor. At the same time, Barry et al. (2009) did not confirm that the “network support” mentioned by Cutrona and Russell (1990) was a separate factor. It was not a clear type of support and demonstrated relatively poor reliability. In conclusion, Barry et al. (2009) suggested that “network support” should be removed from the concept of the structure of support received from the partner, as proposed by Cutrona and Russell (1990).

The SIRRS-R shows good psychometric properties: strong reliability (internal consistency, factorial fit) and validity (see Barry et al., 2009). Cronbach’s α was .95 for the entire scale, and from .87 to .92 for individual subscales (see also Brock et al., 2014). In order to obtain the scores of the support received from the partner, the answers referring to the estimated frequencies of supportive behaviors during the last month should be summed up (0 – never, 1 – rarely, 2 – sometimes, 3 – often, 4 – almost always). Participants are asked how often their partner engaged in each supportive behavior described in the questionnaire (SIRRS-R). The scores of received support can be calculated for the whole scale and separately for each type of support (Barry et al., 2009).

POLISH VERSION OF SIRRS-R

The aim of our study was to create the Polish version of the 25-item original English version of the SIRRS-R (Barry et al., 2009). Specific objectives were: (a) to examine the factor structure of the SIRRS-R by means of confirmatory factor analysis (CFA); (b) to validate the SIRRS-R questionnaire with external criteria (marriage satisfaction rating), and (c) to present a report of the psychometric properties of the SIRRS-R. We assumed that the Polish version of the questionnaire would have the same four-factor structure as the original version of the SIRRS-R. According to the methodological procedures used in the adaptation of the psychological tests (Hornowska & Paluchowski, 2004) and after obtaining consent from the authors (Robin A. Barry), the SIRRS-R questionnaire was translated into Polish by five independent translators. Then an expert panel (i.e., seven English-speaking researchers with experience in the field of family psychology) developed a Polish version of items trying to make only minor necessary modifications not departing from the original statements. We tried to make the translation as exact as possible. Such a procedure made it possible to check the accuracy of the translation (Hornowska & Paluchowski, 2004). Then, a pilot study was carried out.

PARTICIPANTS AND PROCEDURE

PARTICIPANTS

Studies on the Polish adaptation of the SIRRS-R were carried out from February 2016 to July 2017. A cross-sectional study design was used. Participants were recruited using the method of snowball sampling. To participate in the study, women and men had to be married or in informal relationships and aged above 18 years. The sample consisted of N = 574 adults aged 19 to 64 years (M = 28.46, SD = 7.79).
All research participants were in heterosexual relationships: a half in marriages (49%; n = 281), and the other half in informal relationships, cohabiting with their partner (50.35%; n = 289). The duration of the relationship was varied, with the average of 7 years (M = 6.82, SD = 6.16). The vast majority of the respondents were women (n = 407; 70.90%), while men accounted for about one third of the research group (n = 167; 29.10%). Participants with university level education constituted almost a half of the sample (n = 273; 47.60%), followed by those still studying (n = 170; 29.60%), those having secondary education (n = 85; 14.80%), those having vocational (n = 21; 3.70%), post-secondary (n = 18; 3.10%) and primary education (n = 5; 0.9%). The Polish sample was very homogeneous with regard to race and ethnicity. The vast majority of participants completed paper/pencil questionnaires; only approximately one quarter (n = 141; 25.77%) completed the questionnaires online. The respondents were informed about the purpose of the study and agreed to participate. The instruction assured them of the voluntary nature of participation as well as anonymity.

MEASURES

The following measurement tools were used in the present research:

The Support in Intimate Relationships Rating Scale – Revised (SIRRS-R). The Polish version of the SIRRS-R (in Polish: Skala Oceny Wsparcia w Bliskich Związkach) is a self-report questionnaire of 25 items that are evaluated on a 5-point Likert scale ranging from 0 (never) to 4 (almost always). The Polish version was prepared in accordance with the above-described principles and is included in the appendix (see Appendix – SIRRS-R in Polish/English version).

The Polish version of the Berlin Social Support Scales (BSSS – developed by Schulz & Schwarzer, 2003 and adapted to Polish by Łuszczynska et al., 2006). Received partner support was assessed using one of the subscales (Actually Received Social Support). This subscale consists of 15 items, including statements such as: “This person is feeling bad”, “This person encouraged me to give up”. Responses ranged from 1 (completely untrue) to 4 (completely true). Higher scores indicated higher received partner support. In the current study Cronbach’s α was .93.

The Life Satisfaction Questionnaire (Fragebogen zur Lebenszufriedenheit [FLZ]) by Fahrenberg, Myrtek, Schumacher, & Brähler; see Polish adaptation by Chodkiewicz, 2009). The questionnaire comprises 10 subscales. We used one of them, namely “Satisfaction with Marriage/Relationship”. The subscale consists of seven items, including statements such as: “I am satisfied with the gentleness and support that my partner shows me”, “I am satisfied with the honesty and openness in our relationship”. Responses are evaluated on a 7-point scale from 1 (very dissatisfied) to 7 (very satisfied). The higher the score, the greater the marriage/relationship satisfaction. In our study Cronbach’s α was .95.

RESULTS

FACTORIAL STRUCTURE OF RECEIVED SUPPORT

Statistical analyses of the collected results were performed using the PS Imago program – SPSS Statistic 24 and JASP 0.11.1 equipped with the lavaan package (Rosseel, 2012). In order to verify the factor structure of the original SIRRS-R version, a confirmatory factor analysis (CFA) was performed using a DWLS estimator (diagonally weighted least squares, i.e., estimation procedure for categorical variables with both multivariate normal and non-normal distributions – Mardili, 2010). The DWLS methods worked well in many conditions, including smaller samples and non-normal data (Rhemtulla, Brosseau-Liard, & Savalei, 2012). The dimensionality of the SIRRS-R was investigated using conventional CFA techniques, along with the utilization of a higher-order structure of a CFA measurement model (see Brown, 2006; Janszewsowski, 2011).

We tested the factor structure of the SIRRS-R several times. First, we tested a one-factor model (model 1 – see Table 1), and then a four-factor model (model 2 – see Table 1). Model 2 has proven to be an intercorrelated four-factor solution (see Figure 1) measuring informational support (8 items; factor Fc1 contains items 1, 2, 3, 4, 5, 6, 7, 8), physical comfort (4 items; factor Fc2 contains items 9, 10, 11, 12), emotional/esteem support (8 items; factor Fc3 includes items 13, 14, 15, 16, 17, 18, 19, 20), and instrumental/tangible support (5 items; factor Fc4 consists of items 21, 22, 23, 24, 25) proposed by Barry et al. (2009). The factors in our analysis were given the same names as in the original version of the SIRRS-R. We also tested a third model (model 3). This model is a second-order factor conceptualization to determine whether the four factors could be explained by a broader general factor, which we assumed to be “Support in Intimate Relationship” (see Figure 2).

We employed CFA to compare the three competing models and determine the best-fitting factor model (Table 1). Regular χ² difference tests were not conducted here for the comparison of non-nested competing models. Following generally accepted practice, we used the Tucker–Lewis index (TLI), the χ² statistic, comparative fit index (CFI), and root mean square error of approximation (RMSEA) to evaluate the fit of each model. CFI and TLI values ≥ .90 indicate adequate model fit (.95, excellent fit),
Figure 1. Hypothesized model of four-factor structure for the SIRRS-R.

Figure 2. Hypothesized second-order model of factorial structure for the SIRRS-R.

Table 1
Confirmatory factor analysis (CFA) and second-order model fit indices for the alternative models of the SIRRS-R

<table>
<thead>
<tr>
<th>CFA models</th>
<th>$\chi^2$</th>
<th>df</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1 (1-factor)</td>
<td>1007.02*</td>
<td>275</td>
<td>.967</td>
<td>.964</td>
<td>.068 (.064-.073)</td>
</tr>
<tr>
<td>Model 2 (4-factor)</td>
<td>470.23*</td>
<td>269</td>
<td>.991</td>
<td>.990</td>
<td>.036 (.031-.042)</td>
</tr>
<tr>
<td>Model 3 (second-order factor)</td>
<td>477.69*</td>
<td>271</td>
<td>.991</td>
<td>.990</td>
<td>.036 (.031-.042)</td>
</tr>
</tbody>
</table>

Note. N = 574; CFI – comparative fit index; TLI – Tucker–Lewis index; RMSEA – root-mean-square error of approximation; CI – confidence interval; * indicates $\chi^2$ is statistically significant ($p < .001$).
while RMSEA values ≤ .08 and .06 indicate acceptable and excellent fit, respectively.

Table 1 reports the fit indices for the three alternative models. We obtained good fit indices in all examined models. CFIs, TLI, and RMSEAs were > .95, > .95, and < .04, respectively. The one-factor model (model 1) has the weakest fit from the three presented models ($\chi^2 = 1007.02$, $df = 275$, TLI = .964, CFI = .967, RMSEA = .068).

The best-fitting model is the Barry four-factor model ($\chi^2 = 470.23$, $df = 269$, TLI = .990, CFI = .991, RMSEA = .036). The results of first-order CFA showed that the four-factor model has a good fit to the data (Table 1). The adequacy of this model must also be considered in terms of the parameter estimates: all the factor loadings were high, positive, and statistically significant. The covariances between factors are high (.64-.85), but between two factors (factor 1 and factor 3) they are too high (.85). That may mean poor discriminant validity (Brown, 2006). If all factors are moderately intercorrelated at roughly the same magnitude, a single higher-order factor may account for these relationships (Brown, 2006, p. 32). We hypothesized that there is a higher-order factor in the SIRRS-R that accounts for the commonality among first-order factors. As can be seen from Table 1, the second-order model has almost the same fit indices as the first-order model ($\chi^2 = 477.69$, $df = 271$, TLI = .990, CFI = .991, RMSEA = .036). The second-order factor explains a high percentage of variance for scores in informational support ($R^2 = .81$) and emotional/esteem support ($R^2 = .89$) and a moderate percentage of variance for instrumental/tangible support ($R^2 = .68$) and physical comfort ($R^2 = .42$). Standardized factor loadings for the second-order CFA are included in Table 2. The adequacy of this model can also be determined in relation to its parameter estimates. All the factor loadings for the general factor of the SIRRS-R are high, positive, and statistically significant ($p < .001$) (see Table 2).

The psychometric properties of the scale are satisfactory (see Hornowska & Paluchowski, 2004). Reliability for the whole scale measured by Cronbach’s α equals .94, which is fully satisfactory. The internal consistency measured by Cronbach’s α for individual subscales is satisfactory as well, being .87 for informational support, .92 for physical comfort, .88 for emotional and esteem support, and .85 for instrumental or tangible support. It is assumed that the α value of .70 and above indicates a satisfactory reliability of the measured scale (Bedyńska & Cypryańska, 2013).

### TESTING OF 4-FACTOR MODEL ACROSS MARITAL AND INFORMAL RELATIONSHIPS

We tested the proposed four-factor model to determine whether it fits the empirical data from the sample of participants in informal relationships and married couples. CFAs of our four-factor structure adequately fit the data from participants in informal relationships: $\chi^2 = 287.95$, $df = 269$; $p = .204$; TLI = .998,
Psychometric evaluation of the Polish version of the SIRRS-R

As expected, the correlations proved to be significant, positive and high (for the overall SIRRS-R score, $r = .89, p < .01$). In addition, the relationship between SIRRS-R and Satisfaction with Marriage/Relationship (one of the Life Satisfaction Questionnaire subscales of the Polish adaptation by Chodkiewicz, 2009) was evaluated. Both the results for the entire SIRRS-R scale and its four subscales were significantly, positively and usually highly correlated with marital satisfaction/satisfaction with the relationship. The results of the correlation analyses are presented in Table 4.

**CONSTRUCT VALIDATION OF THE POLISH VERSION OF THE SIRRS-R**

The analysis of the inter-correlation matrix demonstrates that the subscales included in the SIRRS-R questionnaire distinguished on the basis of factor analysis remain interrelated (Table 3). The correlations between individual subscales and the global score for the entire scale are statistically significant and high. These interdependencies remain in accord with the expectations and confirm the internal validity of the SIRRS-R questionnaire.

Convergent validity was confirmed using another measurement tool for received support. Correlations were calculated between the SIRRS-R scores and the Actually Received Social Support subscale, a part of the Polish version of the Berlin Social Support Scales (BSSS – Łuszczyńska et al., 2006). As expected, the correlations proved to be significant, positive and high (for the overall SIRRS-R score, $r = .89, p < .01$). This suggests that the model fits both the individuals in informal relationships and married participants. In other words, the four-factor model of partner support is valid in both groups.

**DESCRIPTIVE CHARACTERISTICS OF THE SIRRS-R**

The Polish version of the SIRRS-R shows good psychometric properties (see Table 5). Cronbach’s α coefficient was calculated in order to estimate the internal consistency of the instrument. The whole scale reliability measured with Cronbach’s α is .94, while for the individual subscales the alphas range from .85 to .92. The total score of the SIRRS-R ranges between 12 and 100. As the score increases, support received from the partner in the intimate relationship also increases.

**Table 3**

*Intercorrelation matrix for SIRRS-R and subscales*

<table>
<thead>
<tr>
<th>Factor 1. Informational support</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1. Informational support</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor 2. Physical comfort</td>
<td>.51**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Factor 3. Emotional and esteem support</td>
<td>.74**</td>
<td>.58**</td>
<td>1</td>
</tr>
<tr>
<td>Factor 4. Instrumental or tangible support</td>
<td>.64**</td>
<td>.45**</td>
<td>.66**</td>
</tr>
<tr>
<td>SIRRS-R</td>
<td>.89**</td>
<td>.72**</td>
<td>.91**</td>
</tr>
</tbody>
</table>

*Note.* **$p < .001.$*

**Table 4**

*Correlation between SIRRS-R and Received Partner Support (BSSS), and Satisfaction with Marriage/Relationship (FLZ)*

<table>
<thead>
<tr>
<th>SIRRS-R</th>
<th>Actually Received Partner Support BSSS</th>
<th>Satisfaction with Marriage/Partnership FLZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIRRS-R (total score)</td>
<td>.81**</td>
<td>.81**</td>
</tr>
<tr>
<td>Informational support</td>
<td>.73**</td>
<td>.74**</td>
</tr>
<tr>
<td>Physical comfort</td>
<td>.54**</td>
<td>.56**</td>
</tr>
<tr>
<td>Emotional/esteem support</td>
<td>.77**</td>
<td>.73**</td>
</tr>
<tr>
<td>Instrumental/tangible support</td>
<td>.67**</td>
<td>.71**</td>
</tr>
</tbody>
</table>

*Note.* **$p < .01.$*
The major aim of the study was to evaluate the psychometric properties of the Polish version of the Support in Intimate Relationships Rating Scale – Revised (SIRRS-R) developed by Barry et al. (2009). The results of our analysis are compatible with the existing multidimensional conceptualization of received partner support developed by Cutrona and Russell (1990) and modified by Barry et al. (2009). We evaluated the psychometric properties of the SIRRS-R by conducting a confirmatory factor analysis and comparing three structural hypothetical models, and by testing internal consistency and convergent validity of the instrument. First, the unidimensional or one-factor model was tested. Although this model had a good fit to the data, we made an assumption that the models under comparison should be supported theoretically. On the basis of the fit indices, the four-factor model was considered to provide a good explanation of the sample data. This model was based on the structure proposed by Barry et al. (2009), who distinguished the following factors: (1) informational support, (2) physical comfort, (3) esteem/emotional support and (4) instrumental or tangible support.

However, we observed that the intercorrelations between factor 1 (informational support) and factor 3 (emotional/esteem support) were too strong (.085). Factor intercorrelations above .80 or .85 imply poor discriminant validity and suggest that a more parsimonious solution could be obtained (Brown, 2006, p. 32). We concluded that the four factors may show no significant predictive utility above and beyond that of a general higher-order SIRRS-R factor in terms of their association with other outcome variables. All factors were intercorrelated, so we decided to run a single higher-order factor analysis (Brown, 2006). The second-order factor was hypothesized to explain all the covariance among the first-order factors. A higher-order model can be tested when it is justified theoretically to account for relations among lower-order factors (Byrne, 2005). The third model showed that a higher-order SIRRS-R factor explained a high percentage of variance for scores in informational and emotional/esteem support, and moderate for instrumental/tangible support and physical comfort. The good second-order factor loadings indicated that the first-order factors were adequately explained by the higher-order factor. The obtained results suggest that the SIRRS-R in our adaption was well characterized by the second-order factor model. Moreover, the fit indices remain basically the same in both the first- and the second-order model (no discrepancy in CFI, TLI, RMSEA between 4 factors in model 2 and the second-order factor in model 3). The latent structure of this questionnaire is predicted to be characterized by four first-order factors. The four factors are presumed to be intercorrelated.

Another point which requires further interpretation is related to the question why two factors (factor 1 – informational support and factor 3 – emotional/esteem support) showed such a strong relationship between each other. The answer can be sought in language differences caused by different cultures. Some items may have been differently understood in the Polish sample than the American one. For example, item number 8 (“Inferred how I was feeling about a situation” – Informational support) and item number 19 (“Said he/she would feel the same way in my situation” – Emotional/esteem support) may seem similar to Polish participants. Therefore, cross-cultural research to establish invariance across cultures is needed.

Our results are to a great degree consistent with the findings reported in the original study by Barry et al. (2009). The confirmatory factor analysis results generally supported the factorial structure of the original version of the SIRRS-R proposed by Barry et al. (2009). In our study the standardized factor loadings for all items were positive, high, and statistically significant, ranging from .64 to .88. The factor loadings reported by Barry et al. (2009) were generally similar, ranging from .59 to 1.00. Some differences emerged when analyzing factor intercorrelations. In research done on the American sample the factor correlations were slightly lower, ranging from .45 to .65, than in our sample (from .51 to .74). The differences may largely be attributable to the different cultural and linguistic frameworks.
meanings in the two languages resulting from cultural differences, as well as the selection of subjects for the sample (for example, there were significantly more men in the American sample as compared to the Polish sample).

With regard to factorial reliability, the findings suggested that the Polish version of the SIRRS-R shows high reliability. The Cronbach’s α reliability for the whole scale is .94, while for the individual subscales alphas ranged from .85 to .92. These results correspond closely with the findings reported by the authors of the original version of the SIRRS-R: for the individual subscales, alphas ranged from .86 to .92 (Barry et al., 2009).

Convergent validity of the Polish version of the SIRRS-R is corroborated by the positive, high correlation of global perceptions of support received from an intimate partner, measured by the SIRRS-R with actual received social support measured by BSSS. Moreover, the support received from the partner measured by means of the SIRRS-R correlated highly with marital/relationship satisfaction, which means that our findings provide evidence of the criterion validity of scores. Generally, the results of the current research indicate satisfactory psychometric properties of the Polish version of the SIRRS-R. For researchers it is also important how much time it takes to complete the questionnaire. The participants found the SIRRS-R questionnaire relevant, clear and easy to manage, taking about 8-10 minutes to finish. And, what is important, results for the invariance tests indicated equivalence across participants from married couples and informal relationships.

When interpreting the results obtained, it is worth emphasizing that our research confirms the validity of adopting a multidimensional model of social support used by Cutrona and Russell (1990) in their consideration of support in intimate relationships. Our analyses replicate psychometrically the findings by Barry et al. (2009). Three types of support (emotional and esteem support, informational support, instrumental or tangible support) are consistent with those described by Cutrona and Russell (1990). Additionally, our research provided evidence for yet another type of partner support called physical comfort, described by Barry et al. (2009) in their four-factor model. As the authors wrote, “the emergence of a physical comfort dimension distinct from emotional support may lead researchers to examine how nonverbal expressions of support play a unique role in coping efforts relative to verbal forms of support” (Barry et al., 2009, pp. 55-56). The multidimensionality of the SIRRS-R offers interesting options for research on the diversity of social support in intimate relationships; it also opens new possibilities for developing psychological counseling for couples. Compared with the existing measures, the SIRRS-R is helpful when exploring more nuanced types of partner support in intimate relationships. For example, using the Received Social Support Scale of the BSSS it is possible to measure received support from other people, not necessarily from the partner (see Luszczyńska et al., 2006). In turn, the questionnaire developed by Mandal and Moroń (2017 – the Support in Marriage and Intimate Relationships Questionnaire [in Polish: Kwestionariusz Wsparcia w Małżeństwie i Bliskich Związkach]) is another tool available to measure the support received from a partner. However, there is a problem of comparability of the Polish results and results obtained in other countries. Mandal and Moroń (2017) carried out adaptation of the original 48-item version of the SIRRS questionnaire developed by Dehle et al. (2001) but significantly shortened the questionnaire (22 items) and labeled the types of support received from the partner according to their own conceptualization.

The current study has some limitations that require further research. First, the group of participants consisted mostly of women (around 70%). Another constraint related to the sample was the relatively low diversity in the sample characteristics with respect to education level. A majority of participants had university education. These limitations reduce the generalizability of the results and should be addressed in future studies on a more representative sample of people in intimate relationships. This means that both greater male participation and diversity in terms of education level should be ensured. Testing for equivalence of measures using the SIRRS-R instrument is an important issue, and future research should focus on measurement invariance across gender and couple types (e.g. short vs. long relationship experience), with particular emphasis on cross-cultural research.

Even with these limitations and suggestions as to future research, the present results provide empirical evidence that the SIRRS-R questionnaire has good psychometric properties and may provide interesting information about partner support in intimate relationships. The adaptation and validation of the SIRRS-R could be useful to conduct studies targeting Polish speaking people in close relationships. In addition, the measure with good reliability and construct validity will be useful for future research and allow cross-cultural studies.

CONCLUSIONS

The Polish version of the SIRRS-R questionnaire, which closely corresponds to the English version, is a convenient instrument to assess social support received in intimate relationships, with good psychometric properties. The multidimensional support model allows for estimation of four types of support: emotional and esteem support, informational support, instrumental or tangible support and physical...
comfort. The tool can be useful in research on the need to assess various aspects of support received from the partner in different contexts of intimate relationships and family life associated with stress. The psychometric properties of the SIRRS-R indicate that the instrument can be applied to test partner support in both married couples and informal relationships.

References


### Appendix 1

**SKALA OCENY WSPARCIA W BLISKICH ZWIĄZKACH (SIRRS-R)**

*The Support in Intimate Relationships Rating Scale – Revised*

(SIRRS-R by Barry, Bunde, Brock, & Lawrence, 2009, Polish adaptation by Ilska, & Przybyła-Basista)

Pomyśl o różnych sytuacjach stresowych, problemach, kłopotach, wyzwaniach, z którymi mierzyłaś/leś się w okresie ostatniego miesiąca. A teraz pomyśl o relacjach, jakie miałaś/leś w tym czasie z Twoim partnerem/partnerką, kiedy doświadczalaś/leś tych sytuacji stresowych lub problemów. Odnosząc się do każdego stwierdzenia, poniżej wskaż, tak dokładnie jak potrafisz, **jak często** Twój partner/partnerka zachowywał/ła się w określony sposób.

*Think over the past month and the various stresses, hassles, problems or challenges you have faced. Now take a minute to think back to the interactions you have had over the past months with your partner when you were experiencing those stresses and problems. For each of the items below, indicate, as closely as you can, how frequently your partner did each of these behaviors.*

<table>
<thead>
<tr>
<th>Jak często to się zdarzało?</th>
<th>Nigdy / Never</th>
<th>Rzadko / Rarely</th>
<th>Czasami / Sometimes</th>
<th>Często / Often</th>
<th>Prawie zawsze / Almost always</th>
</tr>
</thead>
<tbody>
<tr>
<td>W ostatnim miesiącu, gdy czułam/-łem się zdenerwowana/-ny, zestresowana/-ny lub będąc w kłopocie z powodu różnych problemów lub trudnych sytuacji, jak często mój partner/partnerka...</td>
<td>0 1 2 3 4</td>
<td>0 1 2 3 4</td>
<td>0 1 2 3 4</td>
<td>0 1 2 3 4</td>
<td>0 1 2 3 4</td>
</tr>
</tbody>
</table>

1. Dawał/-a mi wskazówki, jak poradzić sobie w danej sytuacji.
   
   *Gave me suggestions about how to handle a situation.*
2. Mówił/-a mi, jak rozwiązać problem albo poradzić sobie z sytuacją.
   
   *Told me what to do to solve a problem or deal with a situation.*
3. Pomagał/-a mi spojrzeć na sytuację z innej perspektywy.
   
   *Helped me think about a situation in a new way.*
4. Uczyć/-a mnie lub pokazywał/-a mi, jak coś zrobić, wykonać.
   
   *Taught me or showed me how to do something.*
5. Dzielił/-a się ze mną swoim osobistym doświadczeniem z sytuacji podobnej do mojej.
   
   *Shared a personal experience that was similar to my situation.*
6. Dzielił/-a się ze mną fakta/mi lub informacj/ami dotyczącymi sytuacji, z którą się zmagalałam/-leś.
   
   *Shared facts or information with me about a situation I was facing.*
7. Powiedział/-a mi swoimi słowami, jak rozumię tę sytuację, o której mu opowiadziałam/-leś.
   
   *Restated what I had told him/her about a situation.*
8. Domyślił/-a się, jak się czułem w danej sytuacji.
   
   *Inferred how I was feeling about a situation.*
9. Przytulal/-a mnie. [Hugged me or cuddled with me.]

*(Table continues)*
W ostatnim miesiącu, gdy czułam/-łem się zdenerwowana/-ny, zestrelowana/-ny lub będąc w kłopotie z powodu różnych problemów lub trudnych sytuacji, jak często mój partner/partnerka...

[In the past month, when I was feeling upset, stressed or hassled by some problem or difficult situation...]

Jak często to się zdarzało?

<table>
<thead>
<tr>
<th>Jak często to się zdarzało?</th>
<th>Nigdy / Never</th>
<th>Rzadko / Rarely</th>
<th>Czasami / Sometimes</th>
<th>Często / Often</th>
<th>Prawie zawsze / Almost always</th>
</tr>
</thead>
</table>

10. Całował/-a mnie. [Kissed me.]

11. Trzymał/-a mnie za rękę. [Held my hand.]

12. Czule mnie głaskal/-a. [Patted or stroked me affectionately.]

13. Mówil/-a mi, że wszystko będzie dobrze. [Told me everything would be OK.]

14. Powiedział/-a, że jego/jej zdaniem dobrze poradziłam/-łem sobie z sytuacją. [Said he/she thought I handled a situation well.]

15. Był przekonany./Była przekonana, że poradzę sobie z sytuacją, w której się znalazłam/-łem.

[Expressed confidence in my ability to handle a situation.]

16. Mówil/-a dobre rzeczy o mnie. [Said good things about me.]

17. Mówil/-a, że to, jak się czuję, jest w porządku.

[Said it was OK to feel the way I was feeling.]

18. Stawał/-a po mojej stronie, kiedy dyskutowano o mojej sytuacji.

[Took my side when discussing my situation.]

19. Powiedział/-a, że czułby/czułaby się tak samo w tej sytuacji.

[Said he/she would feel the same way in my situation.]

20. Powiedział/-a, że nie jestem winna/-y tej sytuacji.

[Said I was not at fault for my situation.]

21. Zaoferował/-a konkretną, bezpośrednią pomoc w tej sytuacji.

[Offered to do something to help me directly w/my situation.]

22. Pomógł/-a mi w konkretny, bezpośredni sposób.

[Did something to help me directly.]

23. Zaoferował/-a mi pomoc w pośredni sposób (np. zaoferował/-a, że wykona za mnie moje obowiązki).

[Offered to help me indirectly (e.g., offered to do my chores).]

24. Pomógł/-a mi w pośredni sposób (np. wykonał/-a za mnie moje obowiązki).

[Did something to help me indirectly (e.g., did my chores).]

25. Zaoferował/-a, że zrobimy coś, abym poczuł/-a się lepiej.

[Offered to do something with me to help me feel better.]

Informational support: 1, 2, 3, 4, 5, 6, 7, 8.
Physical comfort: 9, 10, 11, 12.
Emotional and esteem support: 13, 14, 15, 16, 17, 18, 19, 20.
Instrumental or tangible support: 21, 22, 23, 24, 25.