

The Scale of Attitudes Toward Seniors (SATS). Presentation of the measurement tool

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ABSTRACT

Aim

The aim of this study was to re-validate the Scale of Attitudes Toward Seniors (SATS) developed based on G. Milkowska's concept of social attitudes towards the elderly.

Method

The validation was carried out on a sample of 1025 people aged $M = 30.75$ ($SD = 14.05$). An exploratory factor analysis with raw Quartimax rotation was performed, and theoretical validity was determined by analyzing the correlation matrix summarizing the relationship between the SATS vs. the Satisfaction with Life Scale (SWLS), the Resilience Assessment Scale (SPP-25), the Anger Expression Scale (SEG), the Sense of Coherence Scale (SOC), The Life Attitudes Profile (LAP) and the Eysenck Impulsiveness Questionnaire (IVE).

Results

Three subscales of the SATS were distinguished: Respect and Recognition, Rejection and Misunderstanding, and Social Distance, with Cronbach's alpha coefficients in the range of .70-.93. Correlation analyses and other methods confirmed the content validity of the SATS.

Conclusions

The properties of the SATS indicate that this tool can be deployed in individual psychological assessment and in research.

Keywords: psychometric properties, SATS, attitudes towards seniors, ageism

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INTRODUCTION

In the contemporary world, the most respected values are youth, strength, vitality, entrepreneurship or resourcefulness, and old age seems to be out of the way of the mainstream of everyday life (cf. Nicole-Urbanowicz, 2006; Pakos, 2017). Although the importance of older people for society is officially emphasized, their contribution to the development of generations, as well as an experience that inspires recognition and respect (see: Dąbska & al., 2016), old age is also perceived in negative terms related to nuisance, illness, suffering, disability, a burden for the environment or social isolation (see: Zająć-Lamparska, 2008b; Finogenow, Kaflik-Pieróg & Strzelczyk, 2016). These observations became the inspiration for the construction of the Scale of Attitudes towards Seniors (SATS) by Łukasiewicz and Kowalski (Łukasiewicz & al., 2018).

An important motive for developing this tool and distinguishing subscales was the analysis of social attitudes towards older people based on the opinions of students (Milkowska, 2014). The author noticed the existence of polarized attitudes towards the elderly in our society. A significant part of this are positive, supportive attitudes characterized by respect and appreciation for the values represented by seniors. They are demonstrated by empathy, understanding and willingness to help. There are, however, evidently negative, unfavorable attitudes, focusing on pejorative behavior of seniors, their demanding attitudes or mental and physical disabilities. The next two unfavorable attitudes towards seniors are characterized by the author as distance and indifference towards the elderly, resulting mostly from the lack of knowledge and personal relations with the elderly. The above general characteristics of attitudes were confirmed in many other studies, conducted not only among young people (Gulin, 2010 – cited in Iwanciw, 2010; Trempała, 2007; Zająć-Lamparska, 2008a; Olszewski, 2013).

The first version of the Attitude Toward Seniors Scale was published in 2018, launching a broader study on the perception of attitudes towards older people in the context of various demographic (gender, age, place of residence, family of origin, education) and psychological variables (selected personality traits, level of empathy, meaning in life, sense of coherence, expression of negative emotions, etc.). The first version of the tool consisted of 67 items included in three subscales: *Respect and Support*, *Rejection and Misunderstanding*, and *Social Distance*. This article presents the re-validation process of the Attitude Towards Seniors Scale and the psychometric properties of its new version.

METHOD

Participants

The current validation of the Attitudes towards Seniors Scale (SATS) was carried out on a sample of 1025 people. The research was conducted on-line, anonymously, by sending the SATS by e-mail to various centres and institutions in

the country, or by posting invitations to research on social networks. A detailed description of the respondents is presented in Table 1.

The mean age of the respondents was $M = 30.75$ years ($SD = 14.05$), the youngest person was 15 years old and the oldest was 93 years old. Women constituted a majority in the study group (75.71%), the most common place of residence of the respondents was rural area (41.46%), and more than half of the respondents have never been married (54.54%). The research group consisted of people with secondary (49.76%) and higher (45.17%) education.

Table 1**Demographic characteristics of the studied group**

Variable	Group	<i>N</i>	%
Gender	Women	776	75.71
	Men	249	24.29
Place of residence	Village	425	41.46
	City up to 100,000 residents	246	24.0
	City over 100 thousand residents	354	34.54
Marital status	Single	559	54.54
	Divorced	388	37.85
	Widow / widower	61	5.95
	Widow / widower	17	1.66
Education level	Elementary/lower elementary	52	5.07
	Secondary	510	49.76
	Tertiary	463	45.17

Measures

The first version of the SATS, consisting of 67 items was validated in this study. The SATS is divided into three subscales: Respect and Support (23 items, e.g. "I feel great respect for the knowledge and experience of older people"), Rejection and Misunderstanding (22 items, e.g. that older people are generally not very favorable towards the younger generation) and Social distance (16 items, e.g. "Older people have enough money, but cannot manage it"). Respondents have answered each item using a six-point scale (from 1: *completely disagree* to 6: *completely agree*).

In the validation studies, apart from the SATS, the following reliable psychometric tools were used:

- The Satisfaction with Life Scale SWLS (Diener, Emmons, Larson & Griffin; Polish adaptation: Juczyński, 2010) to measure generalized satisfaction with life;
- The Resilience Assessment Scale SPP-25 (Ogińska-Bulik & Juczyński, 2008) to measure resilience in the form of a general index and in the subscales *Perseverance and determination in action, Openness to new experiences and sense of humour, Personal competence and tolerance for negative emotions, Tolerance for failure and treating life as a challenge, Optimistic attitude to life and the ability to mobilize oneself in difficult situations*;
- The Anger Expression Scale (SEG) (Ogińska-Bulik & Juczyński, 2010) to measure external (expressed) and internal (suppressed) anger;
- IVE Impulsiveness Questionnaire (Eysenck & Eysenck; Jaworowska, 2011) to measure Impulsivity, Tendency to risk and Empathy;
- Life Attitudes Profile LAP (Reker; Polish adaptation: Klamut, 2010) to measure the Goal, Internal Coherence, Life Control, Death Acceptance, Existential Void, Goal Seeking, Personal Meaning and Balance of Life Attitudes;
- Rosenberg's Self-Esteem Scale SES (Rosenberg; Polish adaptation: Dzwonkowska, Lachowicz-Tabaczek & Łaguna, 2008) to measure global self-esteem;
- Life Orientation Questionnaire SOC (Antonovsky, 1995) to measure General Sense of Coherence, Sense of Comprehensibility, Sense of Manageability, and Sense of Meaningfulness;
- Youth Aggressiveness Questionnaire – Emotional Reactivity (Sajewicz-Radtke, Radtke & Kalka, 2015) to measure Direct Aggression, Indirect Aggression, Irritability, Opposition, Lying, Verbal Aggression and Overall Score.

Data analysis

The following statistical analyses were used in the current research: exploratory factor analysis, correlation analysis, reliability and item analysis. Exploratory factor analysis was used to distinguish subscales in the SATS, correlation analysis was used in order to check the relationships between the results in the SATS and the results in other scales. We also used the reliability and item analysis to assess further psychometrical properties of the SATS. The discriminant power was estimated by assessing the correlation between the score of a given item and the overall score. In addition, in the analysis of the relationship between the results of the SPSW subscales and demographic variables, the *t*-Student test, the Pearson's *r* correlation coefficient, and the analysis of variance were used as well. The normality of the results distribution was tested using the Kolmogorov-Smirnov test. The distribution of variables in groups did not differ significantly from the normal distribution in most cases. Due to the sizeable sample, in the cases when the distribution differed significantly from the normal distribution, it was possible to use the Central Limit Theorem and apply parametric tests too.

Descriptive statistics and percentages, were also used in the description of the research results. Statistical analyses were performed using the Statistica version 13 (TIBCO Software Inc., 2017).

RESULTS

Factor analysis

To determine whether the use of factor analysis was appropriate, the KMO coefficient and the Bartlett's test were calculated. The KMO coefficient was .92, while the value of statistics in the Bartlett's test was $\chi^2(2211) = 24977.18$ ($p < .001$), which proved the existence of correlation between the variables and therefore the sense of using the factor analysis. Moreover, the sample was large enough (we intended the number of observations to be at least five times greater than the number of variables).

The factor analysis was performed using the principal axis method. The maximum number of factors was set to 10 and, as a result, 5 factors were identified. All 5 factors met the Kaiser criterion (eigenvalue more than 1). However, factors 4 and 5 accounted for less than 5% of the total variance, so it was reasonable to choose 3 factors, which explained almost 30.52% of the variance of the original variables. The scree plot confirmed the selection of three factors too. In order to maximize the variance of factor loadings, a raw Quartimax rotation was performed.

Out of 67 questions, 60 were eventually selected because some of the questions from the first version of the SATS were not clearly correlated with just one scale. The values of the factor loadings of the selected factors are presented in Table 2. The first factor consists of 30 questions and explains 18.00% of the baseline variance, the second factor contains 19 questions and explains 8.25% of the baseline variance, whilst the third factor contains 11 questions and explains 4.27% of the baseline variance.

Table 2

Factor loadings of the SATS

Respect and Support Subscale		Rejection and Misunderstanding Subscale		Social distance Subscale	
Item no.	Factor load	Item no.	Factor load	Item no.	Factor load
31	.77	19	.65	29	.57
39	.70	20	.62	38	.48
28	.68	17	.58	46	.46
40	.66	18	.56	2	.43

continuation of the Table 2

Respect and Support Subscale		Rejection and Misunderstanding Subscale		Social distance Subscale	
Item no.	Factor load	Item no.	Factor load	Item no.	Factor load
53	.64	51	.55	4	.41
42	.64	13	.54	30	.41
27	.63	36	.53	25	.38
32	.63	11	.51	8	.37
33	.63	15	.49	58	.37
24	.61	22	.48	60	.36
26	.61	37	.46	57	.30
34	.61	49	.46		
54	.61	50	.46		
48	.60	35	.45		
44	.59	10	.44		
55	.57	14	.44		
5	.56	52	.39		
7	.56	12	.38		
16	.56	56	.29		
45	.54				
6	.50				
41	.50				
3	.47				
43	.47				
47	.46				
23	.45				
59	.44				
1	.43				
9	.43				
21	.40				

Internal consistency and discriminant power of the SATS subscales

Internal consistency of the SATS was assessed based on the value of the Cronbach *alpha* coefficient for all three subscales (Hornowska, 2013). The reliability of the results for the *Respect and Support* and *Rejection and Misunderstanding* subscales was at a high level, while for the *Social Distance* subscale the reliability was clearly lower, although acceptable (see Table 3). The reliability coefficients advocate the questions selection and answers consistency within the three subscales of the SATS.

Table 3

Reliability of the SATS

Subscale	Cronbach's alpha
Respect and Support	.93
Rejection and Misunderstanding	.86
Social distance	.70

The discriminant power of all questions of the SATS tool is presented in a division into three scales in Table 4. The conducted analyses showed a high discriminative power of all questions constituting particular factors. Therefore, there are grounds to consider that the reliability of the three-factor Scale of Attitudes Towards Seniors is satisfactory.

Table 4

The SATS items discrimination power

Respect and Support Subscale			Rejection and Misunderstanding Subscale			Social distance Subscale		
Item no.	Discrimination power	Cronbachs alfa if deleted	Item no.	Discrimination power	Cronbachs alfa if deleted	Item no.	Discrimination power	Cronbachs alfa if deleted
31	.73	.93	19	.61	.85	29	.55	.64
39	.67	.93	20	.60	.85	38	.38	.67
28	.66	.93	17	.53	.85	46	.38	.67
40	.62	.93	18	.52	.86	2	.37	.67
53	.62	.93	51	.51	.86	4	.35	.68

continuation of the Table 4

Respect and Support Subscale			Rejection and Misunderstanding Subscale			Social distance Subscale		
Item no.	Discrimination power	Cronbachs alfa if deleted	Item no.	Discrimination power	Cronbachs alfa if deleted	Item no.	Discrimination power	Cronbachs alfa if deleted
27	.62	.93	36	.46	.86	30	.33	.68
42	.60	.93	13	.54	.85	8	.33	.68
32	.61	.93	11	.49	.86	25	.28	.69
33	.60	.93	15	.51	.86	58	.29	.69
26	.59	.93	22	.41	.86	60	.27	.69
34	.58	.93	50	.40	.86	57	.24	.69
54	.57	.93	37	.39	.86			
44	.57	.93	49	.47	.86			
48	.57	.93	35	.41	.86			
24	.58	.93	10	.46	.86			
55	.54	.93	14	.46	.86			
5	.56	.93	52	.40	.86			
7	.55	.93	12	.33	.86			
16	.54	.93	56	.30	.86			
45	.52	.93						
6	.50	.93						
41	.48	.93						
3	.47	.93						
47	.44	.93						
43	.44	.93						
23	.44	.93						
59	.43	.93						
1	.43	.93						
9	.41	.93						
21	.40	.93						

Intercorrelations of the SWPS subscales

A statistically significant and positive correlation between the *Rejection and Misunderstanding* and the *Social Distance* subscales, as well as a statistically significant and negative correlation between the *Respect and Support* and the *Repulsion and Misunderstanding* subscales were found. However, no statistically significant relationship was found between the *Respect and Support* and the *Social Distance* subscales (see Table 5).

Table 5

The relation between the SATS and selected psychological questionnaires – values of Pearson's correlation coefficients.

Questionnaire (Subscale)		SATS subscale		
		(1)	(2)	(3)
SATS	(1) Respect and Support	–	-.16*	-.07
	(2) Rejection and Misunderstanding	-.16*	–	.23*
	(3) Social distance	-.07	.24*	–
SPP-25	Perseverance and determination in action	.36*	.21	.03
	Openness to new experiences and sense of humour	.54*	.20	.05
	Personal competence and tolerance for negative emotions	.25	.10	.11
	Tolerance for failure and treating life as a challenge	.45*	.20	.04
	Optimistic attitude to life and the ability to mobilize one-self in difficult situations	.29	.17	.24
	Total score	.42*	.20	.11
SEG	External anger	-.35*	.21	.02
	Internal anger	.22	-.21	-.08
KAM	Lying	.06	-.05	.02
	Direct aggression	-.24	.15	.12
	Indirect aggression	-.17	.20	.16
	Irritability	-.20	.31	-.08
	Opposing	-.21	.28	.02
	Verbal aggression	-.26	.30	-.07
	Total score	-.26	.30	.04

continuation of the Table 5

Questionnaire (Subscale)		SATS subscale		
		(1)	(2)	(3)
SOC	General sense of coherence	-.12	.01	.31*
	Sense of comprehensibility	.29*	-.19	-.09
	Sense of manageability	-.25*	.07	.38*
	Sense of meaningfulness	-.31*	.13	.45
LAP	Goal	.18	-.16	-.08
	Internal coherence	.16	.02	-.26*
	Life control	-.04	.10	-.07
	Death acceptance	-.35*	.44*	.04
	Existential vacuum	.28*	-.13	-.24
	Goal seeking	.07	.06	-.22
	Personal meaning	.19	-.07	-.19
	Balance of Life Attitudes	-.12	.17	.01
IVE	Impulsivity	-.17	.22	.27
	Tendency to risk	.05	-.01	.04
	Empathy	.46*	-.29*	-.22
SWLS		.13*	-.07	.17*
SES		-.02	.02	-.15

Note. SATS – the Scale of Attitudes Toward Seniors; SPP-25 – Resilience Measurement Scale; SEG – Anger Expression Scale; KAM – Youth Aggressiveness Questionnaire – Emotional Reactivity; SOC – Life Orientation Questionnaire; LAP – Life Attitudes Questionnaire; IVE – Impulsiveness Questionnaire; SWLS – Satisfaction with Life Scale; SES – Rosenberg’s Self-Esteem Scale; * $p < 0,001$ (with the Bonferroni correction)

Relationships of the SATS subscales with measures of their accuracy

The results obtained by the respondents in the subscales of the SATS were correlated with the results in other standardized tools. The selection of the tools was dictated by psychological characteristics that may favor a positive or negative attitude towards people (in this case: towards the elderly). Among other things,

the level of empathy, personal sense of meaning in life, personality resources in coping with difficult situations (including interpersonal ones), expression of emotions and dealing with negative affect were all taken into account. For all three subscales of the SATS, statistically significant Pearson's r correlations ($p < .001$; using the Bonferroni's correction) were found. They are presented in detail in Table 5 and summarized in the following paragraph.

For the *Respect and Support* subscale, a statistically significant correlation was found with the results obtained in the following psychometric tools: the Satisfaction with Life Scale SWLS, the Resilience Scale SPP-25 (general score and its subscales: *Perseverance and determination in action*, *Openness to new experiences and sense of humour*, *Tolerance on failures and treating life as a challenge*), the Anger Expression Scale SEG (*External Anger* subscale), the Life Orientation Questionnaire SOC (subscales: *Sense of comprehensibility*, *Sense of manageability*, *Sense of meaningfulness*), the Life Attitudes Profile LAP (subscales: *Acceptance of Death*, *Existential Void*) and the Impulsivity Questionnaire IVE (*Empathy* subscale). The *Rejection and Misunderstanding* subscale of the SATS was significantly correlated with the Life Attitudes Profile LAP (*Acceptance to Death* subscale) and the Impulsiveness Questionnaire IVE (*Empathy* subscale). The *Social Distance* subscale of the SATS significantly correlated with the Satisfaction with Life Scale SWLS, the Sense of Coherence Scale SOC (subscales: *Sense of Manageability*, *Sense of Meaningfulness*) and the Life Attitudes Profile LAP (subscale: *Internal Coherence*). There were no statistically significant correlations between the subscales of the SATS and the Rosenberg SES Self-esteem Scale.

Results in the SATS subscales and demographic variables

Table 6 presents the relationships between the results in the SATS subscales and demographic variables. Women obtained significantly higher scores in the *Respect and Support* and *Social Distance* subscales. A weak positive correlation was also found between age and the results in the *Respect and Support* and *Social Distance* subscales. However, no statistically significant relationship was found between age and the *Rejection and Misunderstanding* scale. There were statistically significant differences in the results in the *Respect and Support* subscale, depending on the place of residence. The Tukey's post-hoc test showed that respondents from cities over 100 000 residents achieved significantly lower results in this subscale than other respondents. Married people achieved significantly higher results in the *Respect and Support* subscale than unmarried women and single men, while in the *Rejection and Misunderstanding* subscale, the single respondents achieved significantly higher results than married and divorced respondents. Respondents with primary/lower secondary education achieved significantly lower results in the subscales *Respect and Support* and *Rejection and Misunderstanding*, compared to those with secondary and higher education. Respondents with higher education achieved significantly lower results in the *Social Distance* subscale, compared to those with secondary or elementary/lower secondary education.

Table 6

The SATS subscales and demographic variables

Variable	Level of the Variable	<i>M (SD). Comparison test or correlation coefficient</i>		
		Respect and Support	Rejection and Misunderstanding	Social distance
Gender	Men	4.08 (.77)	3.74 (.72)	2.91 (.58)
	Women	4.54 (.66)	3.72 (.61)	2.70 (.55)
		$t(1023) = -1.00;$ $p < .01; d = -.73$	$t(1023) = .33;$ $p = .74; d = .02$	$t(1023) = 5.29;$ $p < .01; d = .39$
Age		$r = .10; p < .01$	$r = -.03; p = .30$	$r = .09; p < .01$
Place of residence	Village	4.50 (.61)	3.77 (.64)	2.77 (.57)
	City up to 10.000 residents	4.60 (.50)	3.67 (.62)	2.74 (.57)
	City over 100 thousand residents	4.23 (.75)	3.71 (.65)	2.73 (.55)
		$F(1022) = 28.22;$ $p < .01;$ $eta^2 = .05$	$F(1022) = 1.96;$ $p = .140; eta^2 < .01$	$F(1022) = .65;$ $p = .520;$ $eta^2 < .01$
Marital status	Single	4.34 (.71)	3.80 (.64)	2.78 (.55)
	Married	4.56 (.55)	3.65 (.63)	2.70 (.59)
	Divorced	4.54 (.57)	3.53 (.55)	2.68 (.46)
	Widow/widower	4.35 (.68)	3.67 (.72)	2.87 (.74)
		$F(1021) = 9.33;$ $p < .01; eta^2 = .03$	$F(1021) = 6.13;$ $p < .01; eta^2 = .02$	$F(1021) = 2.16;$ $p = .090;$ $eta^2 = .01$
Education level	Elementary/ Lower elementary	3.61 (1.08)	3.46 (1.02)	2.93 (.78)
	Secondary	4.45 (.61)	3.75 (.62)	2.80 (.56)
	Tertiary	4.50 (.58)	3.72 (.60)	2.67 (.53)
		$F(1022) = 47.33;$ $p < .01; eta^2 = .09$	$F(1022) = 5.10;$ $p = .010; eta^2 = .01$	$F(1022) = 9.70;$ $p < .01; eta^2 = .02$

Note. *t* – test of mean differences for independent samples; *d*, *eta*²– effect size coefficients; *r* – Pearson's correlation coefficient; *F* – ANOVA analysis of variance coefficient

Descriptive statistics of the SATS subscales and normalization

Table 7 shows the mean values, standard deviations, medians, minimum and maximum values, and the results of the Kolmogorov-Smirnov test for each subscale of the SATS tool. The respondents obtained the highest results for the *Respect and Support* subscale, lower for the *Rejection and Misunderstanding* subscale, and

definitely the lowest for the *Social Distance* scale. The obtained results suggest that the respondents generally treat older people with respect and care, and that the elderly evoke positive emotions in them, being treated as a value for society thanks to their experience and wisdom. On the other hand, the respondents notice negative features of older people, such as, for example, unfavorable attitude towards other people, dissatisfaction with life and lack of ideas for the future.

Table 7**The SATS – descriptive statistics in subscales**

Subscale	<i>M</i>	<i>SD</i>	<i>Me</i>	<i>Min</i>	<i>Max</i>	Kolmogorov-Smirnov test
Respect and Support	4.43	.66	4.53	1.20	5.87	$D = .08; p < .01$
Rejection and Misunderstanding	3.72	.64	3.74	1.42	5.79	$D = .04; p < .10$
Social Distance	2.75	.56	2.73	1.18	5.09	$D = .05; p < .05$

In order to obtain the sten scale for each subscale of the SATS tool, the *Z* results were standardized at first, and then the *S* transformation was performed to express the results obtained by the respondents on the sten scale. After rounding the results, it was found that they fell within the appropriate ranges of the standardized distribution. The spans of the raw results corresponding to the particular stens are presented in Table 8.

Table 8**The SATS normalization**

Respect and Support Subscale		Rejection and Misunderstanding Subscale		Social distance Subscale	
Average range	Sten	Average range	Sten	Average range	Sten
1.01–3.1	1	1.0–2.42	1	1.0–1.55	1
3.13–3.43	2	2.47–2.74	2	1.64–1.82	2
3.47–3.77	3	2.79–3.05	3	1.91–2.18	3
3.80–4.10	4	3.11–3.37	4	2.27–2.45	4
4.13–4.40	5	3.42–3.68	5	2.55–2.73	5
4.43–4.73	6	3.74–4.0	6	2.82–3.0	6
4.77–5.07	7	4.05–4.32	7	3.09–3.27	7
5.10–5.40	8	4.37–4.63	8	3.36–3.55	8
5.43–5.73	9	4.68–5.0	9	3.64–3.82	9
5.77–6.0	10	5.05–6.0	10	3.91–6.0	10

DISCUSSION

Validation studies allowed the development of a new self-report version of the Attitude Toward Seniors Scale (SATS), characterized by satisfactory psychometric properties. Factor analysis has resulted in three subscales of the SATS (*Respect and Support*, *Rejection and Misunderstanding* and *Social Distance*) with high reliability Cronbach's alpha coefficients. Each subscale comprises of test items of high discrimination power.

The SATS tool consists of 60 statements the respondent refers to on a 6-point Likert scale (from 1: *completely disagree* to 6: *completely agree*). Completing the SATS takes about 10–15 minutes, and detailed instructions are provided in Appendix 1. In order to interpret the individual result, one has to calculate the average score for each scale by dividing the result by the number of items of the factor (i.e., 30, 19 and 11). The higher the average score, the higher the intensity of attitude towards seniors in particular dimension. The average scores can be converted into normalized scored, i.e., expressed on the sten scale (see Table 8, Appendix 2).

The *Respect and Support* dimension positively correlates with all scales of the Resilience Measurement Scale, which suggests that it is characteristic in people who are able to flexibly adapt to constantly changing conditions (Block & Block, 1980; Block & Kremen, 1996). Resilient people, thanks to the ability to optimize mobilization and commitment, do not lose all their resources, maintaining their resilience and optimism. They are probably equipped with a specific mechanism of self-regulation, which makes it possible for them to perceive reality in terms of positive challenges being undertaken with the awareness of one's own competences (Ogińska-Bulik & Juczyński, 2008). Emotional stability, openness and the freedom to choose effective ways of coping with difficulties give these people the opportunity to gain some knowledge and new experiences. Similar pattern is also visible in people who are understanding towards themselves and others (i.e., have high level of empathy). The low level of external expression of anger and the ability to control one's own aggressive behavior, both verbal and non-verbal, are also features characterising people who respect and support seniors. Taking into consideration the *Rejection and Misunderstanding* attitude towards seniors, it is higher in people who are less empathetic and prone to aggressive behavior, irritability, and impulsiveness. This attitude is also accompanied by higher level of the acceptance of death and persistence in action despite failures. As regards the *Social Distance* attitude, it turned out to be associated with: high general level of coherence; manageability and meaningfulness; reduced empathy and not paying special attention to the world of emotions and feelings; a task-oriented life attitude; determination in achieving goals; the need for expansion and achievements. On the contrary, this attitude does not show a statistically significant relationship with aggressive behavior.

The above-mentioned relationships between the SATS subscales and other psychological variables may be considered important arguments confirming the content validity of this tool. Empathy is the correlate of utmost importance here, the high level of which being related to recognition and respect for the elderly

and the perception of their important place in the community due to their wisdom and experience. At the same time, the low level of empathy seem to foster negative attitudes towards the older generation. Interestingly, there is a group of people who reveal the negative attitude towards seniors, and at the same time are characterized by insightful thinking, life ambition, strong determination in implementing life plans, a sense of manageability and meaningful action. This particularly applies to the people with high scores in the *Social Distance* subscale, i.e., those who perceive the older generation as constant competition in gaining social recognition and raising the economic status. They tend to see in older people the desire to accumulate goods constantly without paying attention to the needs of other people, especially the younger ones, which corresponds to low *Respect and Support* for the elderly. As regards the *Rejection and Misunderstanding* attitude, it seems to be rather a reaction to the behavior and style of functioning of the oldest generation (Jagielska, 2020).

For the purposes of individual psychological assessment, below we summarize the psychological meaning of the results obtained in the three subscales of the SATS:

- *Respect and Support* subscale. A high score characterizes people who treat older people with great respect and attention, feel positive emotions towards them and have the desire to take care of the elderlies. The source of such attitude is the conviction that the elderlies are characterized by great wisdom and experience willingly shared with others. For high scorers, seniors, through their life, personality and knowledge, constitute a great value for the family, the whole society, and especially for the young generation.
- *Rejection and Misunderstanding* subscale. A high score indicates a negative attitude towards the elderly. The source of this attitude is the perception of pejorative personality traits in seniors (irritability, dissatisfaction with life, boredom in life, lack of ideas for further life) and their unfavorable behavior towards other people (especially the young generation), resulting in the perceived loneliness of the elderlies and their isolation from relatives (and the society in general), magnifying various problems and dissatisfaction.
- *Social Distance* subscale. A high score points at the attitude of distance towards the elderlies and (at the same time) the awareness of their good economic and social condition. However, an excessive desire to increase the quality of life by the elderly people (especially through the accumulation of material goods), without taking into account the needs of others, is at the same time a source of negative attitudes and emotional distance towards the elderlies.

The Scale of Attitudes Toward Seniors (SATS) can be used in the assessment of adolescents and adults. Due to the satisfactory psychometric properties, it may be considered useful in both scientific research and individual assessment. Research with the use of the SATS may be conducted by psychologists, educators, sociologists, as well as the representatives of medical and health sciences. The SATS may be useful in the research on the perception of elderly people

in today's society, which is important especially in the current situation of the SARS-CoV-2 pandemic. Seniors are prone to negative health consequences related to the COVID-19 pandemic (including life threat). Moreover, the pandemic affects interpersonal relations, including intergenerational ones, especially if they are polarized. The Attitude Towards Seniors Scale may therefore be helpful in the process of planning activities fostering intergenerational dialogue (see Trempała & Zająć-Lamparska, 2007). Further research should focus on the differences in the perception of older people by seniors and younger generations.

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APPENDIX 1

Scale of Attitudes towards Seniors (SATS)

(Jacek Łukasiewicz i Wiesław Kowalski)

Warning!

The English version of the SATS presented below was translated from Polish by the authors. Since psychometrical parameters of this translation are unknown, it should be considered as an experimental version for the researchers and demands full psychometrical (including cultural) adaptation in future studies.

This questionnaire is intended to study the perception of older people in society. It is completely anonymous. In connection with the conducted research please read the following statements carefully and respond to them by marking your answer. When choosing the answer, it's best to rely on your first impression. At each statement or question, select only one answer. Make sure you have answered all items. Indicate how each of these statements is true or untrue to you. Use the following scale:

- 1 – I totally disagree
- 2 – I disagree
- 3 – I rather disagree
- 4 – I rather agree
- 5 – I agree
- 6 – I totally agree

1	Older people have life wisdom, which they have shaped based on personal experience.	1	2	3	4	5	6
2	Older people have enough money, but they can not manage it	1	2	3	4	5	6
3	I think that young people can learn a lot from the older generation	1	2	3	4	5	6
4	Older people have more opportunities to obtain money for their needs than young people	1	2	3	4	5	6
5	Elders have life experience that can serve younger generations	1	2	3	4	5	6
6	It hurts me that older people are so often abandoned by their families and left without proper care	1	2	3	4	5	6
7	The vast majority of older people strive to support the young generation with their experience and knowledge	1	2	3	4	5	6
8	I feel jealous when I think how much older people can do with so much free time	1	2	3	4	5	6
9	Older people devote a lot of their spare time to the family	1	2	3	4	5	6
10	I think that older people are generally not very favorable to the younger generation	1	2	3	4	5	6

11	Older people have plenty of free time in which they always do the same	1	2	3	4	5	6
12	Older people need as much attention from others as small children	1	2	3	4	5	6
13	Older people are demanding of younger people	1	2	3	4	5	6
14	Older people are overly thrifty and over cautious with money	1	2	3	4	5	6
15	Elders often interfere in matters that do not concern them	1	2	3	4	5	6
16	I feel obliged to give way to a seat on the bus for an elderly person	1	2	3	4	5	6
17	Older people have a lot of free time and do not know how to use it properly	1	2	3	4	5	6
18	The stereotype of a grumpy old man is still valid	1	2	3	4	5	6
19	Older people are often dissatisfied and tired of life	1	2	3	4	5	6
20	Complaining is the domain of older people	1	2	3	4	5	6
21	I feel that the elderly do not want to burden the family with their problems	1	2	3	4	5	6
22	If the elders were more willing to meet others, they would be happier	1	2	3	4	5	6
23	I admire the elderly for the neatness of their homes	1	2	3	4	5	6
24	I feel sadness thinking about the death of older people	1	2	3	4	5	6
25	Older people are generally surrounded by a group of good friends and acquaintances	1	2	3	4	5	6
26	Older people are happy to tell exciting stories	1	2	3	4	5	6
27	I am happy to use grandmother's recipes or grandfather's advice	1	2	3	4	5	6
28	Older people are the support of the family and society	1	2	3	4	5	6
29	Older people have a good financial situation, because they have worked for it all their life	1	2	3	4	5	6
30	Older people are happy with life regardless of their previous experience	1	2	3	4	5	6
31	I feel a great respect for the knowledge and experience of older people	1	2	3	4	5	6
32	The older generation is a great help for young family members	1	2	3	4	5	6
33	Older people have a rich personality	1	2	3	4	5	6
34	Older people always arouse positive emotions in me	1	2	3	4	5	6
35	Older people basically do not make any effort on self-development	1	2	3	4	5	6
36	Older people are always thinking about approaching death	1	2	3	4	5	6

37	Elders are introverted and do things in solitude	1	2	3	4	5	6
38	I'm not surprised that others bully the elderly	1	2	3	4	5	6
39	Elders are a treasury of knowledge for the young generation	1	2	3	4	5	6
40	I feel good in the company of older people	1	2	3	4	5	6
41	The apartment of an elderly person always reminds me of elegance and order	1	2	3	4	5	6
42	I have no resistance to help an elderly person clean up her or his apartment	1	2	3	4	5	6
43	I think that older people often struggle with the problem of loneliness	1	2	3	4	5	6
44	I think that elders have a lot of knowledge, regardless of their level of education	1	2	3	4	5	6
45	I feel sad when I see an elderly person who wears old and worn clothes	1	2	3	4	5	6
46	Elders overly care about luxury housing	1	2	3	4	5	6
47	Older people are always willing to share what they have with others	1	2	3	4	5	6
48	I like to work with older people, because they are more experienced.	1	2	3	4	5	6
49	Older people have a lot of knowledge, but mostly outdated	1	2	3	4	5	6
50	In the homes of the elderly you can find a lot of unnecessary things	1	2	3	4	5	6
51	Older people often feel sorry because for others	1	2	3	4	5	6
52	Older people spend their time mainly watching television	1	2	3	4	5	6
53	When I talk to older people, I think that they know a lot about life.	1	2	3	4	5	6
54	I am always ready to defend the elderly	1	2	3	4	5	6
55	I feel very good when I recall older people to their memories	1	2	3	4	5	6
56	Older people have a lot of free time, but most of the time they have medical appointments	1	2	3	4	5	6
57	Older people find themselves in dangerous situations more than others	1	2	3	4	5	6
58	Older people who are constantly looking for additional work annoy me	1	2	3	4	5	6
59	Despite lower incomes, most older people are more generous than young people	1	2	3	4	5	6
60	A person of old age is a satisfied and happy person.	1	2	3	4	5	6

APPENDIX 2

Respect and Support	Rejection and Misunderstanding	Social distance
1	10	2
3	11	4
5	12	8
6	13	25
7	14	29
9	15	30
16	17	38
21	18	46
23	19	57
24	20	58
26	22	60
27	35	
28	36	
31	37	
32	49	
33	50	
34	51	
39	52	
40	56	
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