European Journal of Education Studies
ISSN: 2501 - 1111
ISSN-L: 2501 - 1111
Available online at: www.oapub.org/edu

DOI: 10.46827/ejes.v13i7.6733 Volume 13 | Issue 7 | 2026

FREQUENT EMOTIONAL SOCIAL SUPPORT AS A BEHAVIORAL INDICATOR OF TEACHER INTERPERSONAL STRESS IN FINLAND AND SOUTH KOREA[i]

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Abstract:
This study examined the associations between the frequency of emotional social support (ESS) use and teacher interpersonal stress in Finland and South Korea, focusing on problematic student behaviors. Data from 268 teachers were analyzed using multi-group structural equation modeling, assessing ESS from colleagues, friends, and family/relatives, controlling for teaching experience. At the latent level, more frequent ESS use was associated with higher teacher stress in both countries. When disaggregated by social network source, only collegial ESS showed consistent associations with stress. In both contexts, frequent collegial ESS was linked to interpersonal stress related to students' demanding requests. Context-specific patterns also emerged. In Finland, collegial ESS was additionally associated with stress from verbal aggression, whereas in Korea it was linked to stress from general disliked rude behaviors. These findings suggest that frequent ESS use reflects ongoing coping efforts in response to persistent interpersonal stress, rather than the effectiveness of support itself. By conceptualizing ESS use as a behavioral indicator of sustained emotional demands, this study highlights its potential for identifying teachers experiencing elevated stress. Monitoring collegial ESS frequency may support early identification and inform targeted interventions to promote effective emotional processing and teacher wellbeing.

Keywords: emotional social support, coping strategies, interpersonal stress, problematic student behaviors, teacher wellbeing

[i] 정서적 사회적 지지 사용 빈도의 스트레스 지표 활용 가능성 - 핀란드와 한국 교사를 중심으로

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Abstract:
본 연구는 정서적 사회적 지지(Emotional Social Support, ESS) 사용 빈도와 학생의 문제 행동으로부터 발생하는 교사의 대인관계 스트레스 간의 관련성을 분석하였다. 핀란드와 한국 교사 총 268 명의 데이터를 대상으로, 교수 경력을 통제한 후 다집단 구조방정식모형(multi-group structural equation modeling)을 활용하여 동료, 친구, 가족/친척으로부터의 ESS 사용 빈도와 대인관계 스트레스 간의 관계를 검토하였다. 잠재 수준(latent level) 분석 결과, ESS 사용 빈도가 높을수록 두 국가에서 모두 교사의 대인관계 스트레스 수준이 높았다. 사회적 네트워크 출처별(item level) 분석에서는 동료로부터의 ESS 만이 문제 학생 행동으로 인한 스트레스와 일관된 관련성을 보였다. 양국 모두에서 학생의 과도한 요구로 인한 높은 대인관계 스트레스를 경험할 때, 동료 교사로부터 더 빈번하게 ESS 를 활용하였다. 국가별 차이를 살펴보면, 핀란드에서는 동료 ESS 가 언어적 공격으로 인한 스트레스와도 관련이 있었고, 한국에서는 일반적인 무례한 행동으로 인한 스트레스와도 관련이 있었다. ESS 사용 빈도가 높다는 사실은 기존 연구에서 기대하는 사회적 지지의 효과와는 반드시 일치하지 않았다. 오히려 이러한 결과는 교사가 문제 학생 행동으로 발생하는 대인관계 스트레스에 지속적으로 대응하는 과정을 반영하는 지표로 기능할 수 있음을 시사한다. ESS 사용 빈도를 관찰 가능한 행동 지표로 개념화함으로써, 동료 교사로부터의 ESS 사용 빈도를 모니터링하는 중요성을 강조할 수 있다. 이러한 접근은 교사가 경험하는 높은 대인관계 스트레스를 조기에 식별할 가능성을 제공하며, 동시에 ESS 사용과 관련한 효과적인 정서 처리 필요성과 교사 복지 증진을 위한 전략 개발에도 기여할 수 있다.

Keywords: 정서적 사회적 지지, 대인관계 스트레스, 문제 학생 행동, 교사 복지, 교사 대처 전략

1. Introduction

Problematic student behaviors are a well-documented source of interpersonal stress for teachers, undermining job satisfaction and teaching quality (Mérida-López *et al.*, 2022; Sun & Shek, 2012; Yoon & Rönnlund, 2021). Most prior studies have focused on identifying these behaviors and their effects, but few studies have examined teachers' coping patterns as measurable indicators of ongoing stress from these behaviors. Consequently, how interpersonal stress can be assessed behaviorally remains unclear.

Teachers employ a variety of coping strategies to manage work-related stress (Tsai & Lau, 2013). Among these, Emotional Social Support (ESS), which involves seeking empathy, understanding, and reassurance from colleagues, friends, and family, represents a key emotion-focused coping strategy (Mérida-López *et al.*, 2022; Wills & Shinar, 2000). ESS helps regulate emotional responses rather than directly addressing stressors and is traditionally considered adaptive (Lazarus, 1999). However, recent studies show that frequent use of emotion-focused coping does not always reduce stress; in fact, higher frequency often coincides with higher reported stress (Aulén *et al.*, 2021; Chou *et al.*, 2011). This suggests that coping frequency may serve as a behavioral marker of persistent stress, distinct from its effectiveness.

To address this gap, the present study examines ESS frequency as an observable indicator of teachers' interpersonal stress arising from problematic student behaviors. Importantly, the study does not assume that ESS causes stress. Instead, frequent ESS use reflects ongoing coping demands, and it can serve as a practical tool for early detection of stress. By investigating two educational contexts, Finland and South Korea (hereafter referred to as Korea), this study tests whether ESS frequency is a robust stress marker across cultural and organizational differences. Finland and Korea provide contrasting contexts in teacher autonomy, hierarchy, and classroom management, which allow us to assess ESS frequency across diverse educational systems (OECD, 2023; Wilk, 2017; Yoon & Rönnlund, 2021).

Overall, this study contributes by proposing a novel behavioral measure of teacher stress that moves beyond traditional self-report questionnaires. Monitoring ESS frequency in schools may help identify educators experiencing persistent stress and guide timely support. This approach can inform strategies for effective stress management and promote equitable classroom interactions with students (Eschler *et al.*, 2023; Mérida-López *et al.*, 2022).

2. Literature Review

2.1 Problematic Student Behaviors as Teacher Interpersonal Stressors

Research has traditionally focused on identifying student behaviors perceived as disruptive or stressful, such as general rule violations (e.g., talking out of turn, lack of active participation in learning, inappropriate device use) and antisocial behaviors (e.g., smoking, substance use) (Little, 2005; Smetana & Biz, 1996). Recent studies emphasize that student misbehaviors within teacher-student interactions generate interpersonal stress and can undermine both positive relationships and classroom functioning (Spilt *et al.*, 2011l; Tschannen-Moran & McMaster, 2009). However, few studies have linked these behaviors to observable coping patterns, leaving a measurement gap that the present study addresses. Comparing Finland and Korea allows testing whether teachers' coping behaviors reliably indicate ongoing stress (Harmsen *et al.*, 2018; Taddei *et al.*, 2017).

Interpersonal stress does not arise solely from direct interaction with individual students. It also reflects teachers' responsibility to manage classroom resources and interactions for all students, while simultaneously supporting those who exhibit challenging behaviors (OECD, 2023; Tschannen-Moran & McMaster, 2009). These relational and organizational demands make problematic student behaviors persistent stressors that require ongoing emotional and cognitive effort (Harmsen *et al.*, 2018; Spilt *et al.*, 2011). Framing these behaviors within professional roles positions them as a context where coping frequency can reflect stress intensity (Taddei *et al.*, 2017; Tschannen-Moran & McMaster, 2009).

Professional norms further intensify this stress. Teachers are often expected to suppress negative emotional expressions while interacting with students (Morris & Feldman, 1996). Repeated exposure to challenging or uncontrollable behaviors requires

continuous emotion regulation, creating a discrepancy between felt and displayed emotions. This emotional dissonance can increase physiological arousal and contribute to job strain (Blum *et al.*, 2012; Go *et al.*, 2021). Therefore, the stress experienced by teachers emerges not only from student behaviors themselves but also from the interplay between relational demands, classroom equity, and ongoing emotional regulation (Lazarus, 2006b; Mérida-López *et al.*, 2022).

Recent research identifies four types of problematic student behaviors that generate interpersonal stress: (1) verbal aggression—hostile language expression, creating relational tension; (2) awkward reactions—students' limited awareness of teachers' professional roles, complicating instructional processes; (3) demanding requests—disproportionally consuming teachers' time and energy; and (4) disliked actions—verbal and non-verbal impoliteness disrupting classroom interactions) (Go *et al.*, 2021; Taddei *et al.*, 2017). Each type requires sustained attention and emotional investment, making these behaviors persistent sources of stress. Early-career teachers (fewer than three years of experience) report stronger negative emotional responses to these behaviors, suggesting stress intensity can exceed individual coping capacity (Harmsen *et al.*, 2018; Heikonen *et al.*, 2017).

In sum, problematic student behaviors represent recurrent interpersonal stressors embedded in teachers' daily work. Because these stressors are persistent and hard to eliminate, teachers are likely to engage in ongoing coping efforts. Examining the frequency of such coping behaviors, particularly ESS, provides a measurable behavioral indicator of teacher stress and enables testing ESS frequency as an early detection tool across cultural and organizational contexts.

2.2 Emotional Social Support (ESS) and Its Frequency

ESS refers to the emotional assistance received from social networks, including empathy, understanding, and reassurance (Lakey & Cohen, 2000; Wills & Shinar, 2000). In teaching, ESS is obtained through interactions with colleagues, friends, and family or relatives (Greenaway *et al.*, 2014). Unlike instrumental (e.g., financial assistance) or informational (e.g., advice or guidance) supports, ESS primarily regulates emotional response rather than resolving stressors directly (Ferguson *et al.*, 2017; Mérida-López *et al.*, 2022).

The primary goal of ESS is to help individuals cope with emotional strain, particularly when stressors are persistent or difficult to control (Blum *et al.*, 2012). Teachers who share challenges with colleagues or close social contacts often report greater emotional resilience and lower perceived stress (Ferguson *et al.*, 2017; KEDI, 2017). However, frequent use of emotion-focused strategies, including ESS, is positively associated with higher stress levels (Aulén *et al.*, 2021; Chou *et al.*, 2011). This does not imply that coping strategies are ineffective; rather, their frequent use may reflect ongoing coping demands and persistent exposure to stress, serving as a behavioral indicator of teachers' emotional load.

Frequent ESS use may also involve repetitive focus on negative experiences, which can maintain or intensify distress if not accompanied by constructive emotional

processing (Elias *et al.*, 2015; Watkins & Roberts, 2020). Therefore, understanding ESS frequency provides insight into teachers' regulatory efforts rather than assuming direct stress reduction.

Accordingly, the present study examines whether ESS frequency can indicate stress arising from problematic student behaviors. It also compares ESS use across different social networks—colleagues, friends, and family or relatives—to determine how engagement with ESS varies across relational contexts and cultural systems. This approach positions ESS frequency as a practical tool for early detection of teacher stress, complementing traditional self-report measures.

2.3 Teachers' Stress and Coping Strategies in Finnish and Korean Schools

Schools in Finland and Korea operate under distinct governance, curricular, and organizational frameworks (European Commission, 2019; Framework Act on Education, 2023). Finland has highly public and comprehensive school systems (i.e., integrating 1st to 9th grades) emphasizing teacher autonomy, whereas Korea has mix public and private schools with more hierarchical structures (Wilk, 2017; Yoon & Rönnlund, 2021). These differences provide a context to examine whether ESS frequency reliably reflects teacher stress across diverse educational and cultural settings.

Cultural factors shape teachers' perception and respond to stress (Taylor *et al.*, 2024; Tsai & Lau, 2013). Finnish teachers report stress mainly from impoliteness and complex requests, whereas Korean teachers experience higher stress from excessive complaints and demanding requests (Go *et al.*, 2021; KEDI, 2017; 2023). These highlight how the nature of stressors can vary by context and suggest that behavioral indicators like ESS frequency may capture context-specific stress experiences.

Teachers in both countries use multiple coping strategies, including social engagement (e.g., calling with friends, camping with family), physical activities (e.g., walking, exercise), and cognitive-focused practices (e.g., meditation, mindfulness) (Aulén *et al.*, 2021; Eschler *et al.*, 2023). Among these, collegial ESS is particularly critical, as teachers collaborate to discuss challenges and exchange emotional support (Pöysä *et al.*, 2023; KEDI, 2023). Finnish teachers often manage stress through informal collegial discussions in hallways or lounges (Eschler *et al.*, 2023; Pöysä *et al.*, 2023), while Korean teachers rely more on structured meetings or seminars (KEDI, 2017; Park & Lee, 2015). These patterns illustrate how organizational and cultural factors shape both ESS use and its function as a stress indicator.

2.4 Study Aims

This study examines how frequent ESS use relates to teacher interpersonal stress arising from four types of problematic student behaviors in Finland and Korea. By distinguishing ESS sources across colleagues, friends, and family/relatives, it captures both overall and group-specific patterns. Because ESS availability and frequency vary by relational contexts and educational systems, the study addresses the following three research questions:

1) To what extent do colleagues, friends, and family/relatives provide ESS to teachers in Finland and Korea?
2) How does frequent ESS use relate to teacher interpersonal stress arising from students' verbal aggression, awkward reactions, demanding requests, and disliked actions) in Finland and Korea?
3) How does frequent ESS use from specific groups (colleagues, friends, and family/relatives) indicate teacher interpersonal stress arising from these four types of problematic student behaviors in Finland and Korea?

3. Methods

3.1 Data Collection and Participants

A two-stage sampling approach was employed. First, because municipal research permission is required to collect teacher data in Finland, four accessible municipalities in the eastern and southeastern regions were selected through convenience sampling in both countries. Within each municipality, more than 20 schools were randomly selected from official school lists. School principals were contacted via email and asked to provide consent for their school's participation, upon agreement, distributed an online survey link to in-service teachers.

All participants were fully informed about the purpose of the study, voluntary participation, and confidentiality procedures. Informed consent was obtained prior to data collection. Data management adhered to European Union's General Data Protection Regulation (GDPR, 2016/679) and the guidelines of the Korean National Institute for Bioethics Policy (KoNIBP, 2026). Because principals directly distributed to a survey link and the total number of invited teachers was unknown, response rates could not be calculated.

A total of 268 teachers participated, including 100 from Finland (37.3%) and 168 from Korea (62.7%). All Finnish respondents worked in public schools, whereas Korean teachers worked in public (32.7%) and private schools (67.3%). Most participants taught at the comprehensive school level (1st to 9th grades), with a higher proportion in Finland (98.0%) than in Korea (58.8%). Three participants did not report gender. The proportion of female teachers was relatively balanced across countries, whereas male teachers were more prevalent in Korea. Finnish teachers reported shorter teaching experience (M = 2.34 years, SD = 4.16) compared to Korean teachers (M = 15.92 years, SD = 11.72). Most Finnish teachers had less than five years of experience (82.0%), whereas most Korean teachers had more than five years (77.4%). Given this difference, teaching experience was included as a covariate in subsequent analyses. Detailed information about participants is presented in Table 1.

Table 1: Participants Demographics

Variables		Finnish (N = 100)		Korean (N = 168)	
		n	%	n	%
Gender	Male	25	25.0	74	44.8
	Female	74	74.0	92	54.8
	N/A	1	1.0	2	0.4
Teaching Experience (Years)	< 5	82	82.0	38	22.6
	5–9	0	0.0	30	17.9
	10–19	3	3.0	32	19.0
	20–29	1	1.0	39	23.2
	> 30	14	14.0	29	17.3
Age (Years)	< 30	7	7.0	18	10.7
	30–39	20	20.0	52	31.0
	40–49	29	29.0	39	23.2
	50–59	32	32.0	50	29.8
	> 60	9	9.0	9	5.4
	N/A	3	3.0	0	0.7
Teaching Grades	Kindergarten	0	0.0	14	5.8
	Comprehensive school	294	98.0	141	58.8
	High/Vocational school	3	2.0	85	35.4
	N/A	0	0	1	0.0
Teacher Positions	Classroom teacher	30	30.0	85	47.5
	Subject teacher	60	60.0	82	45.8
	Special education teacher	1	1.0	0	0
	Principal/Vice principal	2	2.0	11	6.2
	N/A	7	7.0	1	0.5
School Types	Public school	100	100.0	55	32.7
	Private school	0	0.0	113	67.3

Note: N/A = Not Answered. Comprehensive school includes 1st to 9th grades. Teaching grades and teacher positions were multiselected.

3.2 Measurements

Demographic information included gender, age, teaching experience, grade levels taught, school type, and teacher position. Two main instruments were included. The English original scales were translated into Finnish and Korean using a multi-step procedure: initial draft translations were reviewed by university professors and educational experts who are native speakers of each language, revised by a professional translator, and pretested with two to three in-service teachers per country to ensure clarity and comprehensibility.

3.2.1 Student-related Interpersonal Teacher Stress (Sr-ITS) Scale

The Sr-ITS scale measures teacher interpersonal stress arising from problematic student behaviors. It is based on the Teacher Social Stress–Student-related scale (TSS-Sr; Taddei *et al.*, 2017) and has been validated with Finnish teachers (Go *et al.*, 2021).

The instrument consists of 10 items across four factors: (1) verbal aggression (VA, three items, assessing hostile verbal attacks accompanied by negative emotions, α = .84);

(2) awkward reactions (AR, three items, assessing lack of understanding of teacher works and negative feedback directed at teachers' work, α = .85); (3) demanding requests (DR, two items, assessing students' challenging requests to make teacher work more complicated, α = .83); and (4) disliked actions (DIS, two items, assessing generally impolite student behaviors to interfere with classroom learning environment, α = .75). Teachers rated stress levels on a 5-point Likert scale from 1 (Not at all stressful) to 5 (Very stressful) in response to "How stressful is it when you interact with students who…?"

3.2.2 Social Support Factor in Emotional Stress Coping Strategy (ESCS) Scale

Teachers' engagement with ESS from colleagues, friends, and family/relatives was assessed using a single social support factor. Based on Go *et al.* (2021), six widely used emotion-focused coping scales were reanalyzed to identify overlapping items, resulting in a 12-item, four-factor structure (self-blame, professional support, social support, and religious/meditation support). The social support (SS) factor specifically captures emotional assistance from colleagues, friends, and family/relatives.

The SS factor consists of three parallel items assessing how often teachers talk about their feelings and receive empathy and understanding from each group: SS1 (colleagues), SS2 (friends), and SS3 (family/relatives). Responses were rated on a 5-point Likert scale from 1 (rarely used) to 5 (used many times). This measure has demonstrated acceptable validity and reliability among Finnish teachers (α = .76) and is theoretically appropriate for capturing behavioral engagement with ESS.

3.3 Methodological Limitations and Analysis Strategy

The study has three methodological limitations: (a) the use of convenience sampling, (b) large differences in teaching experience between Finnish and Korean teachers, and (c) use of only the SS factor from the ESCS scale. To address these, a four-step validity assessment and two types of measurement invariance (MI) testing were conducted.

All analyses were performed using SPSS 27.0 and Mplus 7.4. Model fit for multi-group confirmatory factor analysis (MGCFA), MI tests, alignment methods, and structural equation modeling (SEM) were evaluated using standard goodness-of-fit indices: RMSEA < .06, CFI and TLI > .95, SRMR < .08 (Geiser, 2013).

3.3.1 Cross-cultural Validity of ESS items

A four-step validation procedure (DeVellis & Thorpe, 2021) was applied to the three ESS items: (1) Content validity: Nine experts (five in-service teachers and four university affiliated researchers) rated content validity ratio (CVR), whether items captured the structural (three support groups) and functional (emotional) dimensions of ESS; items were coded as 1 = essential and 0 = not essential. (2) Construct validity: MGCFA verified factor loadings across countries. (3) Item-level reliability: Cronbach's α assessed internal consistency; item-total correlations and potential α changes if items were deleted were examined. (4) Discriminant validity: Extreme groups compared top and bottom 27% of participants to test differentiation ability of each item.

3.3.2 Cross-cultural Validity of the Sr-ITS Scale

MI testing and the alignment method ensured cross-cultural validity of Sr-ITS. Since the main goal was to examine structural relationship between ESS frequency and teacher interpersonal stress, metric invariance was sufficient (Geiser, 2013). Fixed alignment optimization aligned factor loadings and intercepts across countries. If fewer than 25% of parameters were non-invariant ($D > .400$) or $R^2 = 0$), the scale deemed suitable for cross-group comparisons (Asparouhov & Muthén, 2023)

3.3.3 Structural Equation Modeling (SEM)

SEM examined associations between ESS frequency and teacher interpersonal stress. Three strategies addressed non-normality and cross-cultural differences: (1) Estimator: Maximum likelihood with robust standard errors (MLM) addressed non-normality (Geiser, 2013). (2) Covariate: Teaching experience included as a freely estimated covariate across countries; equality constraints were not imposed. (3) Residual correlation: Based on theoretical overlap (DIS1 and VA3), a residual correlation was added in the Finnish sample to improve model; no comparable modification was required in the Korean sample.

Despite sampling limitations, combining validity testing, MI analyses, and statistical control for teaching experience strengthens confidence in the results and allows cautious generalization.

4. Results

The findings are interpreted within the context of the sampled teachers, with particularly attention to early-career Finnish teachers, and without making national population-level generalizations between countries. At the descriptive level, teachers in both countries reported the highest levels of interpersonal stress in response to students' verbal aggression. Across both contexts, ESS was most frequently obtained from colleagues and least frequently from family or relatives. Descriptive statistics and correlation coefficients are presented in Table 2.

Table 2: Means, Standard Deviations, and Correlations of Variables

	M	SD	1	2	3	4	5	6	7
Finland (N = 100)									
1. Verbal Aggression	3.11	1.00	1						
2. Awkward Reactions	2.58	0.86	.55***	1					
3. Demanding Requests	2.75	1.13	.71***	.58***	1				
4. Disliked Actions	3.03	0.97	.70***	.67***	.66***	1			
5. Colleague ESS	3.49	1.11	.25**	.10	.31**	.22*	1		
6. Friend ESS	3.33	1.10	.15	.09	.11	.25**	.47***	1	
7. Family/relatives ESS	3.10	1.14	.15	.09	.15	.23**	.33***	.62***	1
Korean (N = 168)									
1. Verbal Aggression	3.77	0.88	1						
2. Awkward Reactions	2.88	0.96	.37***	1					
3. Demanding Requests	3.61	1.03	.65***	.36***	1				
4. Disliked Actions	3.20	1.04	.51***	.52***	.61***	1			
5. Colleague ESS	3.88	1.05	.16*	.13	.17*	.20**	1		
6. Friend ESS	3.62	1.27	.15	.13	.11	.17*	.71***	1	
7. Family/relatives ESS	2.90	1.29	.10	.12	.10	.06	.46***	.40***	1

*$p < .05$, **$p < .01$, ***$p < .001$

4.1 Validity and Reliability of ESS across Social Groups

To address RQ1, the three ESS items were examined for cross-national validity and reliability prior to their use as independent variables (see Table 3).

Content validity was supported by a perfect content validity ratio (CVR = 1), with items conceptually grounded in established measures (e.g., Ways of Coping Questionnaire, Coping Strategies Inventory, and Coping Self-Efficacy Scale) (Go *et al.*, 2021). Construct validity was supported by excellent model fit in MGCFA: $\chi^2(df) = 0.00(0)$, $p < .001$, RMSEA = .00 [.00–.00], CFI = 1.00, TLI = 1.00, SRMR = .00. These results indicate that the three ESS indicators function equivalently across the two national contexts at the measurement level. Internal consistency was satisfactory in both samples (Finland: α = .74; Korea: α = .76). Item–total correlations exceeded the recommended threshold of .30 (Finland: r = .50–.66; Korea: r = .46–.70), and reliability estimates were not improved by item deletion, suggesting that all items contributed meaningfully to the construct. Discriminant validity was further supported by significant differences between upper and lower 27% groups for all three items ($p < .001$). Effect sizes ranged from small to moderate (Finland: Cohen's d = .23–.45; Korea: d = .41–.60), with confidence intervals excluding zero.

These findings indicate that ESS across the three social groups is a psychometrically sound and cross-nationally sufficient construct. This supports its use as an indicator of coping frequency in subsequent analyses examining its relationship with teacher stress

Table 3: Validity and Reliability tests for ESS across Social Groups

	Finland (N = 100)			**Korea (N = 168)**		
	Colleague	**Friend**	**Family**	**Colleague**	**Friend**	**Family**
CVR	1	1	1	1	1	1
Overall α	0.74			0.76		
r	0.50	0.66	0.56	0.70	0.63	0.46
If deleted α	0.74	0.55	0.68	0.57	0.62	0.82
ΔM	-3.12	-3.30	-2.56	-2.36	-2.71	-2.87
t	-48.76	-36.81	-24.72	-30.84	-28.14	-31.49
df	25.00	26.00	69.92	57.00	67.00	115.41
p	< .001	< .001	< .001	< .001	< .001	< .001
d	0.23	0.38	0.45	0.41	0.60	0.50
CI Lower	-16.21	-10.69	-6.63	-6.55	-5.19	-6.56
CI Upper	-10.82	-6.65	-4.64	-4.90	-3.83	-4.93

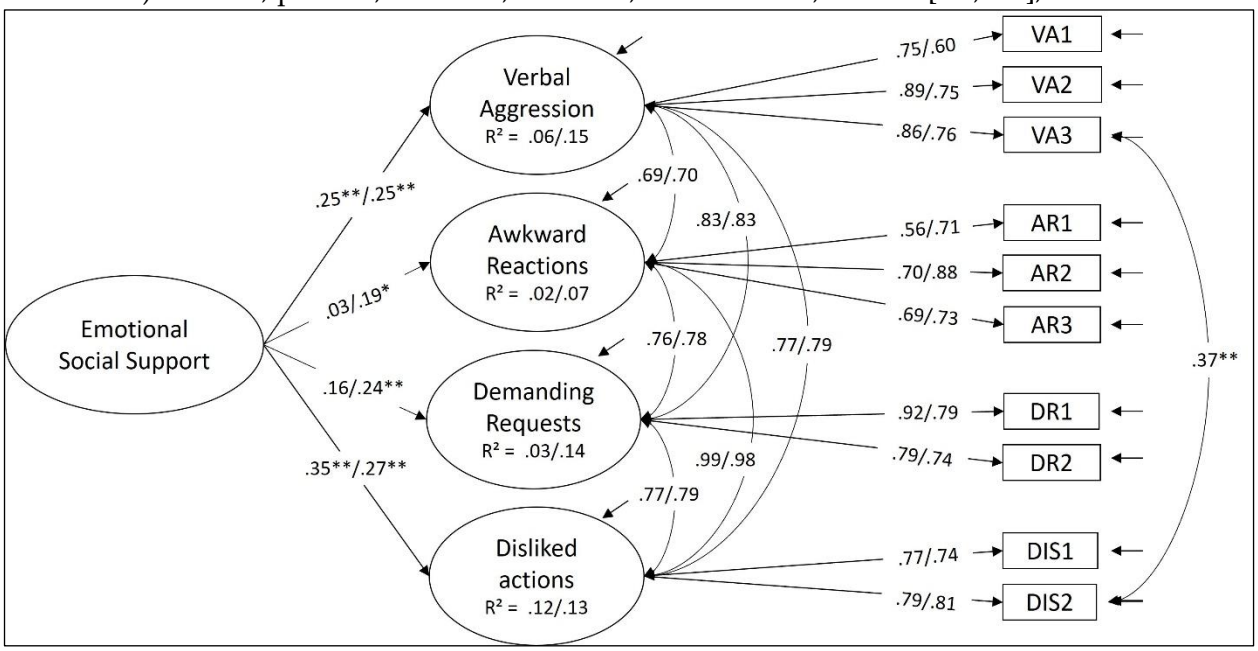
Note: CVR = Content Validity Ratio, Overall α = Reliability of three items in a factor, r = Item total correlation, If deleted α = reliability changes when each item was deleted, ΔM = Mean difference between the upper and lower 27% groups, d = Cohen's effect size, CI = 95% Confidence Interval.

4.2 Frequent ESS Use as an Indicator of Teacher Interpersonal Stress

Before addressing RQ2, measurement invariance (MI) of the four latent stress factors was examined to ensure structural comparability across countries. Metric invariance was established through traditional MI testing (see Appendix A), indicating that factor loadings were equivalent across groups. The alignment method further supported approximate scalar invariance, despite a small number of non-invariant intercepts. The alignment model demonstrated good fit: $\chi^2(df) = 76.018(58)$, $p = .06$, RMSEA = .05 [.00, .08], CFI = .98, TLI = .97, SRMR = .05. Of the 26 estimated parameters, six showed non-invariance, remaining below the 25% threshold commonly used to justify cross-group comparisons (see Appendix B). The results indicate that the interpersonal stress constructs are sufficiently comparable for structural analysis.

To address RQ 2-1, the relationship between overall ESS frequency (modeled as a unified coping tendency) and teacher interpersonal stress was examined. Frequent ESS use was positively associated with teacher interpersonal stress in both Finland and Korea. In the Korean sample, ESS frequency showed significant positive associations with stress across all four types of problematic student behaviors: verbal aggression, awkward reactions, demanding requests, and disliked actions. In the Finnish sample, significant positive associations were observed for stress related to verbal aggression and disliked actions, while associations with awkward reactions and demanding requests were not statistically significant.

Figure 1: Interrelations between a unified ESS factor and teacher interpersonal stress from four problematic student behaviors in Finaldn (left) and Korea (right). Standardized model: $\chi^2(143, N = 268) = 221.19$, $p < .001$; CFI = .94, TLI = .93; RMSEA = .07, 95% CI [.05, .08]; SRMR = .07.



Note. All p-values are < .001 unless otherwise indicated. *$p < .05$, **$p < .01$.

These results indicate that higher ESS frequency corresponds to higher levels of reported interpersonal stress (see Figure 1). Consistent with the study's conceptual framework, ESS frequency is interpreted not as a causal factor, but as a behavioral indicator of ongoing coping demands. While this pattern was observed in both countries, the specific stress domains linked to ESS frequency varied across contexts.

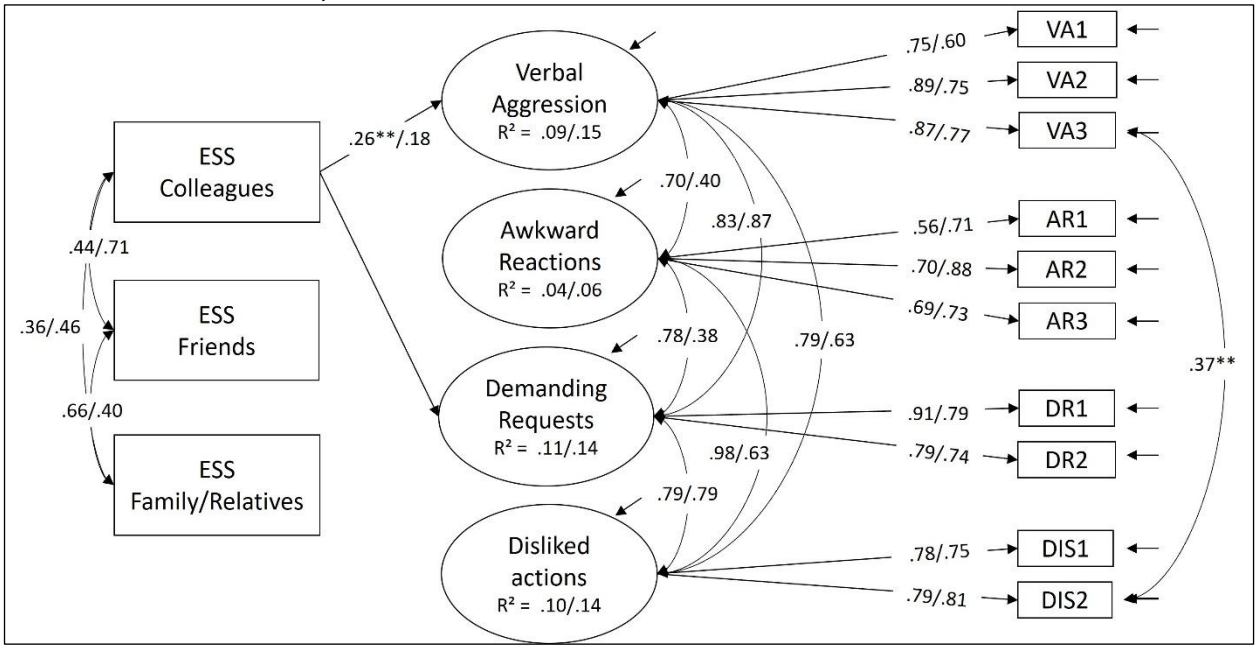
4.3 Differential Associations by ESS Source

To address RQ 2-2, ESS was disaggregated into three observed predictors—support from colleagues, friends, and family/relatives—which were simultaneously modeled in relation to the four latent stress factors. This approach allowed examination of whether specific social sources of ESS differentially reflect teacher interpersonal stress.

ESS from friends and family/relatives was not consistently associated with any of the four stress domains across the two countries. In contrast, collegial ESS emerged as the only source showing systematic association with teacher stress.

Specifically, frequent collegial ESS use was positively associated with stress arising from students' demanding requests in Finland and Korea (see Figure 2). In addition, country-specific patterns were observed. In the Finnish sample, collegial ESS frequency was positively associated with stress related to students' verbal aggression. In the Korean sample, it was significantly associated with students' disliked actions (i.e., broadly disrespectful behaviors). These findings indicate that collegial ESS is the most salient social context in which coping frequency reflects teachers' student-related interpersonal stress. While the general pattern was consistent with the overall model (RQ 2-1), the specific behavioral stressors linked to collegial ESS varied across national contexts.

Figure 2: Interrelations between specific sources of ESS and teacher interpersonal stress from four problematic student behaviors in Finland (left) and Korea (right). Standardized model: $\chi^2(32, N = 268) = 184.31$, $p < .001$; CFI = .95, TLI = .92; RMSEA = .06, 95% CI [.04, .08]; SRMR = .06



Note. All p-values are < .001 unless otherwise indicated. *$p < .05$, **$p < .01$.

Consistent with the study's conceptual framework, these associations are interpreted as reflecting ongoing coping demands rather than the stress-reducing effect of support. In this sense, frequent engagement in collegial ESS may function as a context-sensitive behavioral indicator of elevated stress, particularly in relation to classroom management challenges

5. Discussion

This study examined the relationship between frequent ESS use and teacher interpersonal stress in Finland and Korea, using both a unified ESS construct and sour-specific ESS indicators. Across both models, frequent ESS use was positively linked to teacher stress, although the strength and domain-specific patterns varied across contexts. These findings should be interpreted with caution, particularly in the Finnish sample, where most participants were early-career teachers, despite statistical controls for teaching experience.

5.1 Frequent ESS Use as a Behavioral Indicator of Teacher Interpersonal Stress

When ESS was modeled as a unified latent construct, frequent ESS use was positively associated with teacher interpersonal stress in both countries. In Korea, this association was observed across all four types of problematic student behaviors, whereas in Finland, it was limited to stress arising from verbal aggression and disliked actions. These patterns suggest that while the overall association between ESS frequency and stress is robust, its behavioral manifestations may vary across educational contexts.

In classroom settings, teachers frequently encounter student behaviors that are difficult to anticipate and manage, requiring sustained emotional and cognitive effort. In such situations, teachers may rely more frequently on emotion-focused coping strategies, such as ESS, to regulate immediate emotional responses rather than directly resolving the stressors (Blum *et al.*, 2012; Lazarus, 1999). Frequent ESS use may indicate that teachers are continuously managing interpersonal stress in their daily classroom interactions.

Although ESS has traditionally been conceptualized as an adaptive coping strategy (Eschler *et al.*, 2023; Harmsen *et al.*, 2018), the present findings align with prior research that higher frequency of emotional-focused coping co-occurs with higher levels of stress. This pattern should not be interpreted as evidence that ESS is ineffective. Rather, teachers experiencing greater emotional strain may be more likely to seek more empathy, understanding, and reassurance from their social networks (Lazarus, 2006a). These findings suggest that ESS frequency functions as a behavioral indicator of teachers' perceived stress, rather than a mechanism that directly reduces it.

Frequent ESS use, particularly in the form of repeated interpersonal discussions, may therefore represent observable attempts at emotional regulation in response to ongoing classroom challenges. When such efforts occur repeatedly over time, they may signal sustained or unresolved stress (Aulén *et al.*, 2021). This interpretation is especially relevant for early-career teachers, who may experience stronger emotional reactions to

challenging student behaviors and rely more heavily on social support (Harmsen *et al.*, 2018; Heikonen *et al.*, 2017). In the Finnish sample, for example, frequent ESS use in response to verbal aggression may reflect ongoing strain rather than effective resolution. In addition, frequent engagement in ESS may involve repeated focus on negative experiences. Without sufficient emotional processing, such patterns could maintain or intensify distress over time, as suggested in prior research on repetitive emotional focus (Watkins & Roberts, 2020). While ESS remains a valuable coping resource, its frequent use may also signal unmet emotional regulation needs.

The findings contribute to the literature by reframing the positive association between ESS use and stress as a meaningful and interpretable pattern, rather than a paradox. Moving beyond binary classifications of coping strategies as adaptive or maladaptive, the findings emphasize when and why teachers repeatedly engage in ESS. Frome a wellbeing perspective, monitoring ESS frequency in everyday school contexts may provide a practical means of identifying teachers experiencing sustained emotional burden and in need of additional support for effective emotional processing.

5.2 ESS Sources, Teacher Interpersonal Stress, and Cultural Contexts

When ESS was disaggregated by source, collegial ESS emerged as the only support type showing consistent associations with teacher interpersonal stress across both countries (KEDI, 2023; Mérida-López *et al.*, 2022; Pöysä *et al.*, 2023). In contrast, ESS from friends and family/relatives showed limited and non-systematic associations. This pattern suggests that the frequency of support-seeking within professional contexts is more closely aligned with teachers' day-to-day interpersonal demands in the classroom.

Across both Finland and Korea, frequent collegial ESS use was positively associated with stress arising from students' demanding requests. This finding indicates that demanding requests may represent a shared interpersonal stressor that places sustained pressure on teachers' time, attention, and classroom management (Taddei *et al.*, 2017). Such behaviors require teachers to balance individual student needs with the maintenance of equitable classroom interactions, creating ongoing regulatory demands (Lazarus, 2006b; Tschannen-Moran & McMaster, 2009). Within this context, frequent engagement in collegial ESS may reflect repeated attempts to manage emotionally taxing situations that are difficult to resolve immediately.

Simultaneously, country-specific patterns highlight how cultural and organizational contexts shape the behavioral conditions under which ESS frequency reflects stress. In Finland, frequent collegial ESS use was additionally associated with interpersonal stress related to students' verbal aggression. Finnish schools are characterized by relatively horizontal organizational culture structures and high levels of teacher autonomy, which may facilitate more immediate and informal forms of emotional sharing among colleagues (European Commission, 2019; Eschler *et al.*, 2023; Pöysä *et al.*, 2023; Wilk, 2017). Within such environments, teachers, particularly those in early career stages, may be more likely to seek collegial support in response to emotionally salient

and direct interpersonal challenges, such as verbal aggression (Harmsen *et al.*, 2018; Heikonen *et al.*, 2017).

In contrast, among Korean teachers, frequent collegial ESS use was associated with stress related to students' disliked actions, broadly reflecting patterns of everyday disrespect. Given the more hierarchical organizational structures in Korean schools, collegial interactions may be more formalized and oriented toward professional validation (KEDI, 2017; Park & Lee, 2015). Additionally, in hierarchical teacher–student relationships, everyday student rudeness is often treated as a longer-term concern requiring educational guidance (Park & Lee, 2015; Yoon & Rönnlund, 2021). As a result, frequent ESS engagement may be linked to ongoing, norm-related classroom challenges that demand sustained attention rather than immediate resolution (KEDI, 2017; 2023).

These findings suggest that while collegial ESS represents a central context in which coping frequency reflects teacher stress, the specific behavioral triggers of this pattern vary across cultural and organizational settings (Taylor *et al.*, 2024; Tsai & Lau, 2013; Yoon & Rönnlund, 2021). However, frequent collegial ESS use should not be interpreted merely as emotional sharing or support utilization. Rather, consistent with the study's framework, it may function as a context-sensitive behavioral indicator of ongoing interpersonal stress, shaped by both classroom demands and the broader professional environment.

5.3 Theoretical and Practical Implications

This study extends prior research on emotion-focused coping by demonstrating that frequent use of ESS is consistently associated with elevated teacher stress across two distinct educational contexts. ESS is not interpreted as a cause of stress, but as a behavioral manifestation of teachers' efforts to regulate emotional strain arising from classroom interactions. By reframing coping frequency in this way, the study contributes to a more nuanced understanding of how coping processes reflect, rather than resolve, ongoing stress.

From a theoretical perspective, the findings highlight that problematic student behaviors are not simply isolated interpersonal conflicts, but structurally embedded stressors within classroom systems (Morris & Feldman, 1996; OECD, 2023; Split *et al.*, 2011; Tschannen-Moran & McMaster, 2009). Teachers must simultaneously respond to individual student needs while maintaining overall classroom functioning and emotional balance. These competing demands create persistent regulatory pressure, particularly in response to behaviors such as verbal aggression and demanding requests. Within this context, frequent ESS use can be understood as an observable response to sustained emotional demands, rather than a one-time coping reaction.

The findings also underscore the central role of collegial ESS. Teachers who seek empathy and understanding from colleagues are often navigating professional and moral tensions, such as balancing fairness, authority, and care for students (Mérida-López *et al.*, 2022; Pöysä *et al.*, 2023). Collegial contexts provide shared norms and situational understanding, making them especially relevant for processing classroom-related stress

in ways that support cannot always be replicated by friend or family (Park & Lee, 2015). By demonstrating this pattern across Finland and Korea, the study positions coping frequency, particularly within collegial networks, as a cross-contextual behavioral indicator of structurally embedded interpersonal stress.

From a practical perspective, these findings suggest that monitoring the frequency of collegial ESS may offer a feasible and low-burden approach to identifying teachers experiencing sustained stress. Simple reflective prompts (e.g., How often do you discuss classroom issues with colleagues, or whether they repeatedly seek support for similar issues) may help schools detect patterns of ongoing emotional strain (Lazarus, 2006b). Such insights can inform targeted interventions, including mentoring programs for early-career teachers, structured collaboration systems, or workload adjustments, and access to professional counseling (Harmsen *et al.*, 2018).

Notably, it is important to recognize that teachers who frequently provide ESS may also experience cumulative emotional demands (Lazarus, 1999; Ferguson *et al.*, 2017). Schools should therefore consider distributing support roles more evenly, for example through rotating peer-support structures or facilitated group sessions. These approaches may help prevent the concentration of emotional labor while strengthening collective teacher wellbeing.

Finally, the effectiveness of ESS depends not only on its availability, but also on the quality of emotional processing it supports (Elias *et al.*, 2015). While ESS is often beneficial, frequent engagement that centers primarily on repeated validation or problem-focused venting may inadvertently maintain negative emotional states (Watkins & Roberts, 2020). To address this, professional development initiatives may incorporate guided reflection practices that encourage constructive emotional processing (Mérida-López *et al.*, 2022). For example, teachers may be supported to reflect on how they regulate emotions in challenging situations, or to consider alternative strategies for future encounters. Such approaches can help transform frequent ESS use from a signal of sustained stress into a resource for adaptive emotional regulation and long-term professional wellbeing.

5.4 Limitations and Future Research

This study has several limitations. First, convenience sampling produced uneven participant distributions across educational levels and career stages. Notably, in the Finnish sample, a large proportion were early-career teachers. Although teaching experience was statistically controlled and measurement validity was carefully examined, the findings should not be generalized to national populations. Future research would benefit from stratified and targeted sampling across school levels, subject areas, and career stages to examine the role or ESS more precisely across diverse teaching contexts (Ferguson *et al.*, 2017; Heikonen *et al.*, 2017).

Second, the cross-sectional design limits causal interpretation. Although the structural model specified directional paths, these represent modeled associations rather than confirmed causal relationships. It remains unclear whether frequent ESS use

precedes increases in stress or whether elevated stress leads teachers to seek ESS more frequently. Longitudinal studies would be particularly valuable in clarifying the temporal dynamics between coping frequency and stress.

Third, the study focused specifically on ESS and three primary social sources. Future research may extend this framework by incorporating additional forms of support, such as informational and instrumental support, as well as broader professional networks, including mentors or leadership. Multi-level and longitudinal approaches may further clarify when ESS contributes to sustained coping and teacher wellbeing, and when frequent use reflects unmet emotional regulation needs

6. Conclusion

This study provides evidence that frequent ESS use, particularly from colleagues, is consistently associated with teacher interpersonal stress in both Finland and Korea. Across both settings, higher ESS frequency corresponded to higher levels of stress related to specific types of problematic student behaviors. These findings highlight the role of coping frequency as an observable reflection of teachers' persistent emotional demands in classroom interactions.

By adopting a frequency-focused perspective, this study shifts the conceptualization of coping from effectiveness toward its function as a behavior indicator of stress (Aulén *et al.*, 2021). Frequent ESS use reflects sustained efforts to regulate emotional burdens rather than the resolution of stressors themselves. From this perspective, repeated engagement in ESS signals continued exposure to interpersonal challenges, including managing problematic student behaviors while maintaining classroom balance and relational harmony.

The cross-national findings further underscore the importance of cultural and organizational contexts in shaping how stress is experienced and how coping behaviors are expressed (Taylor *et al.*, 2024). While the overall association between ESS frequency and stress was consistent, the specific behavioral triggers and patterns of support use varied between Finland and Korea. These differences highlight the need for context-sensitive approaches when interpreting coping behaviors and designing support systems for teachers.

From a practical standpoint, monitoring the frequency of collegial ESS may provide a useful and accessible means of identifying teachers experiencing ongoing emotional strain. Early identification of such patterns can inform timely and targeted interventions, particularly for teachers at higher risk of overload, such as those in early career stages. In addition, maximizing the benefits of ESS requires attention to the quality of emotional processing, ensuring that collegial support facilitates constructive reflection rather than repetitive focus on negative experiences.

Methodologically, this study demonstrates that ESS frequency, especially within collegial networks, can be reliably operationalized as a cross-contextual indicator of teacher stress. Future research should further investigate the dynamic interplay between

coping frequency and stress over time, expand the range of social support contexts, and examine diverse educational systems to strengthen generalizability (Lakey & Cohen, 2000; Tsai & Lau, 2013).

In conclusion, viewing ESS not only as a coping resource but also as an observable marker of ongoing stress offers a nuanced framework for understanding teacher wellbeing. This perspective supports both theoretical development and practical intervention, enabling earlier identification of sustained stress and more effective support for teachers navigating complex classroom environments across cultural contexts.

Acknowledgements
We are deeply grateful to Professor Janne Pietarinen for his invaluable guidance and mentorship throughout this project. He contributed to all stages of the study and is included as a co-author. We note with deep sadness that he passed away prior to the submission of this manuscript.

Conflict of Interest Statement
We have no competing interests to declare.

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Appendix A: Results of Measurement Invariance Testing for Student-related Interpersonal Teacher Stress Scale

Model	χ^2	df	CFI	TLI	RMSEA	ΔCFI	ΔRMSEA	*p*
Configural	76.018	58	.981	.970	.048	—	—	—
Metric	85.547	64	.977	.967	.050	.004	.002	.138
Scalar	116.375	70	.950	.936	.070	.027	.020	.000

Note: Established metric invariance allows comparisons of structural path coefficients across groups. Scalar invariance, which was not fully supported, was addressed using alignment methods.

Appendix B: Results of Alignment Methods

	Items	Intercepts			Factor Loadings		
		D	*p*	R^2	D	*p*	R^2
Student-related Teacher Interpersonal Stress	VA1	0.055	.548	.995	0.049	.562	.926
	VA2	-0.056	.513	.994	0.005	.885	.999
	VA3	-0.009	.876	.998	-0.100	.371	(.000)
	AR1	(0.435)	(.003)	(.000)	0.012	.560	.998
	AR2	(-0.422)	(.001)	.662	-0.155	.465	.868
	AR3	-0.003	.747	.967	(0.404)	.119	(.000)
	DR1	0.066	.039	.997	0.057	.457	.930
	DR2	-0.284	.064	.921	-0.046	.452	.700
	DIS1	0.058	.330	.673	-0.001	.992	1.000
	DIS2	-0.064	.348	.929	0.001	.992	1.000
Emotional Social Support	SS1	0.239	.059	.798	(0.433)	(.007)	(.000)
	SS2	0.005	.745	1.000	0.013	.864	.907
	SS3	(-0.407)	(.005)	(.000)	0.050	.733	.670

Note: Non-invariant results are in parenthesis based on statistically significant differences and zero R^2. Although the difference is not statistically significant, zero R^2 was considered as non-invariant. D = Differences calculated as Finnish minus Korean; VA = Verbal Aggression; AR = Awkward Reactions; DR = Demanding Requests; DIS = Disliked actions. SS1 = ESS from colleagues; SS2 = ESS from friends; SS3 = ESS from family/relatives.