

DEVELOPMENT OF COMMUNICATION STYLES SCALE (CSS) FOR UNIVERSITY STUDENTS: QUALITATIVE ITEM GENERATION AND CONTENT VALIDATION

Tehmina Muzaffar^{a*} & Umm E Rubab Kazmi^b

^aPhD Scholar, Department of Applied Psychology, Lahore College for Women University, Lahore, Pakistan

^bAssistant Professor, Department of Applied Psychology, Lahore College for Women University, Lahore, Pakistan

*Correspondence to: Tehmina Muzaffar, Department of Applied Psychology, Lahore College for Women University, Lahore, Pakistan. E-mail: tehmnamuzaffar_22@yahoo.com. ORCID: 0000-0002-7134-0796

KEYWORDS:

Assertiveness, Aggression,
Passivity, Communication Styles
Scale, Scale Development

CITE THIS ARTICLE:

Muzaffar, T., & Kazmi, U. (2026).
Development of communication
styles scale (CSS) for university
students: qualitative item
generation and content validation.
Pakistan Journal of Positive
Psychology, 3(8), 82-89.

ABSTRACT

University life is one of the most challenging phases of a student's life because of the interplay of social and academic demands, resulting in anxiety and stress (Yan, 2025; Zhang et al., 2022; SAMFIRA, 2020). One of the challenges is maintaining good interpersonal relationships and communication is imperative to this (Horan et al., 2021, Griggio et al., 2019; Chandra, Mohammadnezhad, & Ward, 2018). However, as people vary both in verbal and non-verbal communication due to cultural differences (Mascarenhas et al., 2015); it is important to know more about this area to develop effective communication skills accordingly. The current study aimed to develop a scale to measure communication styles among university students. Following a rigorous literature review, which identified gaps in existing measures, two focus groups and three semi-structured interviews with clinical psychologists were conducted. After thematic analysis, a final pool of items was generated for expert review. For this, Content Validity Index was established by clinical psychologists through rating the relevance of the items to the construct (N=7) and 40 items were retained.

I. INTRODUCTION

Students experience many ups and downs during university life. This is because of high social and academic pressure resulting in stress and anxiety (Yan, 2025; Zhang et al., 2022; SAMFIRA, 2020); especially during exam times (Zunhammer et al., 2013). Students also go through psychosocial changes when they get admitted to university due to a new environment and it affects their health too (Chen et al., 2020; Hamaideh, 2011; Berry, 2005). Their non-assertiveness complicates their problems more as they tend to be timid, apologetic and degrade themselves (Sims, 2017) and are also socially anxious (Speed et al., 2018). So, it is crucial to make them improve their communication style as early as possible because it is a critical social skill (Kolb & Handley-Maxwell, 2003). Moreover, before advocating for any training for them, it is crucial to first explore their communication styles and then train them to change from maladaptive communication patterns to healthy ones (Waldherr & Muck, 2011). For this reason, the domain of communication styles needs to be explored and it is imperative to develop an indigenous scale that caters to the communication styles of university students. Only once their communication styles are known, they can be offered healthy alternatives.

The most commonly used model, especially for intervention and training purposes is of Sherman (1999). According to this model, there are three types of communication styles, namely passive, assertive and aggressive.

Communication style of passivity involves indirect communication, which is the reason they are misunderstood and victimized mostly (Mohammed et al, 2023; Deltsidou, 2009). People usually use this type of communication style to avoid criticism and conflicts (Agarwal, 2019), so they don't have to express their emotions because they lack this capacity (Shrivastava, 2021). On the other hand, Assertive people are direct in their emotional expression (Dasgupta et al., 2012); voice their rights as well and respect the rights of other people (Sims, 2017); and that too without any fear or anxiety. Lastly, aggressive people inappropriately express their thoughts and emotions, demeaning the rights or respect of other people (Deltsidou, 2009). As mentioned above, students go through a difficult time in university life and suffer from a lot of mental health issues. For this reason, the university plays a very pivotal role in making students communicate effectively to cope with the new environment especially those who are not from the same region. Scenarios in which students might need help may be asking questions from a teacher, expressing opinions different from others and how to say 'no' (Tavakoli et al., 2009). An indigenous scale catered especially to the communication styles of university students may also help them get insights into their speaking quality, how this matters and strategies to change them because self-awareness of one's communication style helps to improve relationships with self, others, and in a group (Hanif et al., 2012). Interventions for improving communication styles mainly comprise of assertiveness training programs and they started as early as 1970s and are delivered in multiple universities or counseling centres (SAMFIRA, 2020). The goal is to make people express openly what they want (Speed et al., 2018). However, the efficacy of such training interventions can be established best through pre and post testing of participants, for which the major requirement is a relevant tool.

Furthermore, the most commonly used model of communication styles is of Sherman's; however, there is no local tool on her model. The significance of using this model for scale development is that most of the intervention programs catering to communication styles are based on the types of communication described by this model. So, an assessment and intervention both would complement each other if based on the same model. Up till now, there is only one scale developed on the same model. This scale was developed on Turkish students by Cem Malakcioğlu in 2023. It constitutes three subscales that can be used independently as well, namely, Aggressivity Scale, Passivity Scale and Assertiveness Scale. However, due to cultural differences, an indigenous scale is needed. Because communication and cultural differences have been discussed a lot (Smith, 2011). Pakistan has a diverse population and has different cultures in terms of communication; for example, sometimes harmony comes only with passive communication due to the interdependent culture of Pakistan (Bashir et al., 2023). However, technological advancement and globalization influenced communication styles due to more exposure (Chen & Starosta, 2000), which is the reason this domain needs to be explored further. The model would also be re-assessed if it fits the current university culture of Pakistan. Like what is passivity for them? What constitutes aggression? And what behaviors or speech is labelled as assertiveness? And are there any other types of communication styles prevalent now? An indigenous scale would answer these questions. The objectives of the current study are given below;

1. To explore communication styles and their types in university students of Pakistan.
2. To develop an indigenous scale for assessing communication styles among university students.

II. METHOD

Step I: Identification and conceptualizing construct for the scale

This is the first and most important step in scale development where the construct is identified and carefully conceptualized according to the objectives and purpose of the research. In the present study, initially, the domain of communication styles was explored and literature was reviewed. After a rigorous literature review, it was found that there were multiple scales measuring assertiveness and aggression but only one scale was found to measure all three styles including passive communication. However, this scale is developed on the Turkish population and lacks validation in other cultures including the Pakistani population. So, the literature has a gap when it comes to Communication Styles, especially among university students in Pakistan. For this purpose, considering the cultural differences as well, Communication Styles were identified as the main construct of the scale to fill this research gap. Item generation for this scale concerning Pakistani culture is established through a literature review, semi-structured interviews with experts, and focus groups with university students.

Literature Review

Through an extensive literature review, items regarding Communication Styles from different scales were shortlisted.

Procedure. Several search engines such as Science Direct, Google Scholar, etc. were used to make this list. Previously published scales in this domain were rigorously searched for. Up till now, the only found scale is the Turkish scale of Communication Styles. Items from this scale as well as other independent Assertiveness and Aggression scales were combined in such a way as to avoid repetitions and overlapping. Communication styles were divided into Unhealthy and Healthy communication styles with 19 and 14 items respectively.

Semi-Structured Interviews

Through semi-structured interviews, the Communication Styles of University students in Pakistan were explored.

Participants. Purposive sampling will be used to collect the sample. 3 University Campus counselors, with a minimum of 3 years of experience in the relevant field were contacted to be a part of the study and verbal consent was taken. The sample was collected from Public and private universities ($N=3$). Experience of the participants ranged from 4 years to 14 years, with the age ranged between 30-45 years ($M=38.3$, $SD=6.24$).

Procedure. In-depth interviews with the University campus counselors were conducted. A semi-structured interview was used to explore Communication Styles in university students of Pakistan. The interviews were conducted on a one-to-one basis over phone and consent was taken to audiotape the session. A few general questions related to the communication styles were compiled beforehand to initiate the discussion for the interview followed by probes and inquiries of the experts' opinion and experience. The recording was later transcribed for further analysis.

Focus Groups

Total two separate focus groups were conducted with university students to collect information regarding Communication Styles, to formulate a rich and comprehensive pool of items for the scale.

Participants. Purposive sampling was utilized for the selection of participants from a public and a private university ($N=2$). Verbal consent was taken from the students initially. Students were taken from BS final year only to make a homogenous group. Focus group 1 participants were 11 females and their ages ranged from 21-22 years ($M=21.5$, $SD=0.707$). Focus group 2 participants were 5 males 4 females with ages ranged from 21-23 years ($M=22$, $SD=1.41$).

Procedure. Institutions were approached with formal permission letters and after approval, data was collected. Verbal consent for the focus group and recording was taken from them after educating them about the purpose and significance of the research. Some general questions related to the construct were initiated and participants were encouraged to share their insights on the topic, followed by probes. Questions were focused on Communication Styles prevalent among them. A discussion was encouraged. The recording was later transcribed and analyzed. A second pool of items was generated after analyzing both semi-structured interviews and focus groups. This list consists of 25 items of Unhealthy communication styles and 13 items of Healthy communication styles.

Final Item List

This was the last step before CVI, where a final list was generated combining all the item pools into one. It was done carefully to avoid any repetitions and overlapping. A final list consisted of a total of 46 items (28=Unhealthy communication styles (Aggression, Passivity and Passive Aggression); and 18=Healthy communication styles). This list was generated for expert opinion and CVI.

Step II: Empirical Validation/ Content Validity Index (CVI)

This step ensures the empirical validation of the scale by establishing a content validity index. Content validity means the degree to which items of a tool are relevant to the construct and purpose of the measure (Yusoff, 2019). This is usually conducted using Lynn's content validity determination; Content Validity Index- CVI (Hapini et al., 2018).

Participants

Expert opinion helps with the empirical validation (Kazmi, 2018). For this purpose, seven clinical psychologists who had at least 3 years of experience working with university students were selected. All the experts had a command of the English language as well. Experts were chosen through a purposive sampling strategy. Experts consisted of 86% women and 14% were men. Age range of the experts was from 32-47 years ($M=39.57$, $SD=5.06$) and the years of experience ranged from 7-21 years ($M=13.43$, $SD=4.47$).

Procedure

Lynn (1986) recommended choosing a minimum of three experts for the relevance evaluation. So, seven experts from the relevant field were considered in the present study to establish an optimal level of CVI for the scale. A Google form was made which included informed consent, instructions and the final list of items. They were required to evaluate each item based on its relevance to the scale, using the 4-point Likert scale where 1=Not relevant, 2=Somewhat relevant, 3=Quite relevant and 4=Highly relevant (Davis 1992; Waltz & Bausell, 1981). After the evaluation, based on the expert's agreements, the item validity index was calculated. CVI was carried out on both levels of item and scale, that is, I-CVI and S-CVI. I-CVI was calculated by combining expert ratings into two categories; where 1 & 2 = Not relevant and 3 & 4 = Relevant. For every item, number of agreements from experts were divided with the total number of experts.

III. RESULTS

Table 1: Demographic details of Experts for CVI

ID	Age	Gender	Education	Designation	Years of Experience
Mr. I	32	Male	PhD Fellow (CP)	Clinical Psychologist	7
Dr. M	40	Female	PhD (CP)	Clinical Psychologist	15
Dr. A	41	Female	PhD (CP)	Clinical Psychologist	16
Dr. M	47	Female	PhD (CP)	Clinical Psychologist	21
Ms. H	44	Female	PhD Fellow (CP)	Clinical Psychologist	11
Ms. S	36	Female	PhD Fellow (CP)	Clinical Psychologist	13
Dr. F	37	Female	PhD	Clinical Psychologist	11

Note. CP=Clinical Psychology

Table 2: Experts rating on No. of agreement and Items CVI (N=6)

S. No.	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Expert 7	No in agreement	Item CVI
1	4	4	4	2	4	4	4	6	.86
2	4	4	4	3	4	4	3	7	1
3	4	4	4	2	4	4	4	6	.86
4	4	4	4	2	4	4	3	6	.86
5	4	3	4	1	4	3	4	6	.86
6	4	4	4	1	4	4	3	6	.86
7	4	4	4	1	4	3	2	5	.71
8	4	3	4	1	4	4	2	5	.71
9	4	4	4	3	4	4	4	7	1
10	4	4	4	1	4	4	4	6	.86
11	4	4	4	1	4	3	4	6	.86
12	4	4	4	1	4	3	3	6	.86
13	4	4	4	1	2	4	3	5	.71

14	4	3	3	1	2	3	2	4	.57
15	4	4	4	1	4	4	3	6	.86
16	4	4	4	2	2	4	4	5	.71
17	4	4	4	1	3	4	4	6	.86
18	4	4	4	1	3	4	4	6	.86
19	4	4	4	1	3	3	3	6	.86
20	4	4	4	1	2	4	4	5	.71
21	4	4	4	1	3	4	3	6	.86
22	4	4	3	2	3	4	3	6	.86
23	4	4	4	1	3	4	4	6	.86
24	4	4	4	3	3	4	4	7	1
25	4	3	4	1	3	4	4	6	.86
26	4	4	4	2	4	3	3	6	.86
27	4	4	4	3	4	4	2	6	.86
28	4	4	4	1	4	4	4	6	.86
29	4	4	4	4	4	4	4	7	1
30	4	3	4	4	4	4	3	7	1
31	4	4	4	3	4	4	3	7	1
32	4	4	4	3	4	4	3	7	1
33	4	4	4	3	4	3	4	7	1
34	4	4	4	4	4	4	3	7	1
35	4	3	4	4	4	4	2	6	.86
36	4	4	4	4	4	4	4	7	1
37	4	4	4	3	3	4	3	7	1
38	4	4	4	4	4	4	3	7	1
39	4	4	4	4	3	4	3	7	1
40	4	3	4	4	4	3	3	7	1
41	4	3	4	4	4	4	3	7	1
42	4	4	4	4	4	3	3	7	1
43	4	4	4	3	4	4	4	7	1
44	4	4	4	3	4	4	4	7	1
45	4	4	4	3	4	4	4	7	1
46	4	4	4	4	4	3	4	7	1

According to Lynn's criteria (1986), if the experts are 6 or more, I-CVI should not be less than .78. So, following this, 40 items were retained in the scale. Scale Content Validity Index was also calculated.

Scale CVI= Total item CVIs/Total no. of items

$$=41.32/46$$

$$=.89$$

According to Lynn's (1896) criteria, .80 value of S-CVI is considered acceptable and .90 or above to be excellent (Wynd, Schmidt, & Schaefer, 2003).

IV.DISCUSSION

Communication styles are related to many mental health concepts. For example, lack of assertiveness is found to be related to anxiety, stress and depression (Hagberg et al., 2023; Baker & Jeske, 2015; Sheynin et al., 2014); emotional instability, poor self-esteem, poor relationships (Speed et al., 2018). Moreover, few researchers found mental distress to be negatively correlated to assertiveness as well (Vagos & Pereira, 2019). In research, assertiveness also mediated the relationship of self-efficacy and problem-solving with mental health and its link with circadian typology (Parto, 2011). All this literature indicates the importance of communication styles and the need to explore this area more. It was reviewed in literature regarding the gaps and cultural biases in early

published scales on this construct. This served the basic reason for developing this indigenous scale for Pakistani university students because culture shapes the communication styles of people (Bashir et al., 2023). Being sensitive to the cultural aspect of society, there are no valid criteria for many behaviors, especially the borderline distinctions between aggression, assertiveness, or passivity, rather these are strongly context-based (Mitamura & Tanaka-Matsumi, 2010; Usami, 2002; Wilson & Gallois, 1998). For example, a behavior can be seen as aggressive in a culture, which may be accounted for as a highly assertive behavior in another community (Mitamura, 2018). Even researches indicate that Asians are less assertive than people in the West (Hanif et al., 2012). The finalized scales depicted culturally relevant items and different from early established scales which were not a great fit for Pakistani university culture. Initially, a list of 46 items was generated after rigorous literature review, focus groups and semi-structured interviews with the field experts. After CFI, the list dropped to 40 items having only the relevant items related to the construct. The three factors were based on Sherman's 1999 model of communication style. First is Assertiveness. This factor includes 7 items (24, 25, 26, 28, 30, 34, 35) and is related to verbal and nonverbal expression of assertive communication style. Some examples are, 'I express my opinions openly'; 'I am an attentive listener'; 'I make a proper eye contact during conversations' etc. The second factor is of Aggression which consists of 6 items (6, 7, 8, 9, 10, 19) and is related to verbal, nonverbal and indirect aggression as well as destruction of property. Some examples are, 'I use abusive language when angry'; 'I express my anger by throwing objects'; 'I hurt others without showing any visible signs of anger' etc. Third and last factor is of passivity which contains 5 items (12, 14, 15, 16, 17) and is related to passive communication style. Some examples are 'I choose not to communicate my needs to others'; 'I feel guilty when I have to say 'NO'; 'I find it difficult to ask for my borrowed items back' etc.

CSS now reflects three different and distinct communication styles of university students of Pakistan. Usually the western scales are widely used in research in Pakistan as well; however, they might not give the true picture (Matsumoto, 2000). So, creating a culturally relevant scale fills the gap in research where cultural context is important. It needs further statistical procedures as well like EFA and CFA to explore and confirm the factor structure. After putting in a lot of effort by the researcher, experts, population and using various statistical methods, CSS will be a tool that can be used by clinical psychologists or researchers to determine the relevant communication style of university students.

V. CONCLUSION

It could be a useful tool for pre and post testing to assess the efficacy of communication style related training programs. However, it has some limitations too. First, it is developed for university students only. Future researchers can expand this population to include various age ranges as communication is the basic foundation of every interaction. This way the generalizability of the scale can be increased hence enhancing the external validity of the scale. Moreover, longitudinal studies can help understand if the scale results change over different contexts like how a person communicates with families or in academic setting or with friends etc.

Disclosure Statement

No potential conflict of interest was reported by the authors.

Funding

The author received no funding from any organizations.

VI. REFERENCES

- Agarwal, U. A. (2019). Impact of supervisors' perceived communication style on subordinate psychological capital and cyberloafing. *Australasian Journal of Information Systems*, 23(12), 1-27.
- Baker, A., & Jeske, D. (2015). Assertiveness and anxiety effects in traditional and online interactions. *International Journal of Cyber Behavior, Psychology and Learning*, 5, 30-46. <https://doi.org/10.4018/978-1-4666-5942-1>.

- Bashir, S., Ashraf, R., & Khaliq, A. (2023). Linguistic Accommodation in Multilingual Conversations: A Cross-Cultural Study of Pakistan. *VFAST Transactions on Education and Social Sciences*, 11(1), 149–154. <https://doi.org/10.21015/vtess.v11i1.1448>
- Berry, J. W. (2005). Acculturation: Living successfully in two cultures. *International Journal of Intercultural Relations*, 29, 697-712.
- Chandra, S., Mohammadnezhad, M., & Ward, P. (2018). Trust and communication in a doctor-patient relationship: A literature review. *Journal of Health Communication*, 3(3), 1-6.
- Chen, Y., Liu, X., Yan, N., Jia, W., Fan, Y., Yan, H., Ma, L., & Ma, L. (2020). Higher academic stress was associated with increased risk of overweight and obesity among college students in China. *International Journal of Environmental Research and Public Health*, 17(15), Article 5559. <https://doi.org/10.3390/ijerph17155559>
- Chen, G. M., & Starosta, W. J. (2000). The development and validation of the intercultural sensitivity scale. *Human Communication*, 3, 1-15
- Dasgupta, S. A., Suar, D. & Singh, S. (2012). Impact of managerial communication styles on employees' attitudes and behaviours. *Employee relations*, 35(2), 173-199.
- Deltsidou, A. (2009). Undergraduate nursing students' level of assertiveness in Greece: A questionnaire survey. *Nurse Education in Practice*, 9, 322–330.
- Griggio, C. F., Nouwens, M., McGrenere, J., & Mackay, W. E. (2019). Augmenting couples' communication with lifelines: Shared timelines of mixed contextual information. *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*, 623(1), 1 13.
- Hagberg, T., Manhem, P., Oscarsson, M., Michel, F., Andersson, G., & Carlbring, P. (2023). Efficacy of transdiagnostic cognitive-behavioral therapy for assertiveness: A randomized controlled trial. *Internet Interventions*, 32, 100629. <https://doi.org/10.1016/j.invent.2023.100629>
- Hamaideh, S. H. (2011). Stressors and reactions to stressors among university students. *International Journal of Social Psychiatry*, 57(1), 69-80.
- Hanif, A., Khalid, W., & Nawaz, M. T. (2012). Communication style of Employed and unemployed men and women in Pakistan. *International Journal of Business and Social Science*, 3(19), 228-235.
- Hapini, A., Aji, Z. M., Rozaini, W., Yaakob, M. F., & Ibrahim, M. (2018). Content Validity Testing of an Instrument to Measure Virtual Learning Environment (VLE) Success among Teachers. *International Journal of Civil Engineering and Technology*, 9, 1378-1385.
- Horan, S. M., Chory, R. M., Craw, E. S., & Jones, H. E. (2021). Blended work/life relationships: Organizational communication involving workplace peers, friends, and lovers. *Communication Research Trends*, 40(2-3), 1-46.
- Kazmi, U. R. (2018). *Psychosocial factors of adjustment problems in university students* (Doctoral dissertation, Lahore College for Women University). Higher Education Commission Pakistan. <https://prp.hec.gov.pk/jspui/handle/123456789/10230>
- Kolb, S. M. & Hanley-Maxwell, C. (2003). Critical social skills for adolescent with high incidence disabilities: Parental perspectives. *Exceptional Children*, 69, 163-179.
- Lynn, M. (1986) Determination and Quantification of Content Validity Index. *Nursing Research*, 35, 382-386. <https://doi.org/10.1097/00006199-198611000-00017>
- Malakcioglu, C. (2023). Multidimensional assessment of assertiveness: Assertiveness, passivity, and aggressivity scales. *Journal of Psychiatric Nursing*, 14(4), 359-368. <https://doi.org/10.14744/phd.2023.82956>.
- Mascarenhas, S., Paiva, A., Degens, N., Hofstede, G. J., & Breen, J. (2011). "How should I say this?" Agents with culturally-appropriate verbal communication styles [Paper presentation]. Conference: Workshop on Emotional and Empathic Agents, New York: USA.
- Matsumoto, D. R. (2000). *Culture and psychology: people around the world* (2nd ed.). Wadsworth
- Mitamura, T. (2018). Developing the functional assertiveness scale: measuring dimensions of objective effectiveness and pragmatic politeness. *Japanese Psychological Research*, 60(2), 99–110. <https://doi.org/10.1111/jpr.12185>.
- Mitamura, T., & Tanaka-Matsumi, J. (2010). Experimental studies of the context dependent nature of assertiveness: Perspectives of speakers and listeners. *Japanese Journal of Interpersonal and Social Psychology*, 10, 77–86.
- Mohammed, S., Nasidi, Q. Y., Muhammed, M. U., Umar, M. M., & Hassan, I. (2023). Perceived correlation between communication styles and interpersonal conflict resolution among international students in Malaysia. *Journal of Nusantara Studies*, 8(2), 354-374. <https://doi.org/10.24200/jonus.vol8iss2pp354-374>

- Parto, M. (2011). Problem solving, self- efficacy, and mental health in adolescents: Assessing the mediating role of assertiveness. *Procedia-Social and Behavioral Sciences*, 30, 644-648.
- SAMFIRA, E. M. (2020). Assertive communication skills in universities. *Journal Plus Education*, 25(1), 361-373.
- Sheynin, J., Beck, K. D., Pang, K. C., Servatius, R. J., Shikari, S., Ostovich, J., & Myers, C. E. (2014). Acquisition and extinction of human avoidance behavior: Attenuating effect of safety signals and associations with anxiety vulnerabilities. *Behavioural Processes*, 103, 228-235. <https://doi.org/10.1016/j.beproc.2014.01.003>
- Shrivastava, A. (2021). Revising and validating scale to measure communication effectiveness in Indian organisations. *International Journal of Indian Culture and Business Management*, 22(3), 309-325.
- Sims, C. M. (2017). Do the big-five personality traits predict empathic listening and assertive communication? *International Journal of Listening*, 31(3), 163-188.
- Smith, P. B. (2011). Communication Styles as Dimensions of National Culture. *Journal of Cross-Cultural Psychology*, 42(2), 216-233. <https://doi.org/10.1177/0022022110396866>
- Speed, B. C., Goldstein, B. L., & Goldfried, M. R. (2018). Assertiveness Training: A Forgotten Evidence-Based Treatment. *Clinical Psychology: Science and Practice*, 25, 1-20. <https://doi.org/10.1111/cpsp.12216>
- Tavakoli, S., Lumley, M. A., Hijazi, A. M., Slavin-Spenny, O. M. & Parris, G. P. (2009). Effects of assertiveness training and expressive writing on acculturative stress in international students: A randomized trial. *Journal of Counselling Psychology*, 56(4), 590-596.
- Usami, M. (2002). *Discourse Politeness in Japanese Conversation: Some Implications for a Universal Theory of Politeness*. Tokyo, Japan: Hituzi Syobo.
- Vagos, P., & Pereira, A. (2019). Towards a cognitive-behavioral understanding of assertiveness: effects of cognition and distress on different expressions of assertive behavior. *Journal of Rational-Emotive and Cognitive-Behavior Therapy*, 37, 133–148. <https://doi.org/10.1007/s10942-018-0296-4>.
- Waldherr, Annie & Muck, Peter. (2011). Towards an integrative approach to communication styles: The Interpersonal Circumplex and the Five-Factor Theory of personality as frames of reference. *Communications*, 36, 1-27. <https://doi.org/10.1515/COMM.2011.001>.
- Zunhammer, M., Eberle, H., Eichhammer, P., & Busch, V. (2013). Somatic symptoms evoked by exam stress in university students: the role of alexithymia, neuroticism, anxiety and depression. *PLoS one*, 8(12).
- Wilson, L. K., & Gallois, C. (1998). *Assertion and its social context*. Tokyo, Japan: Pergamon Press.
- Wynd, C.A., Schmidt, B., & Schaefer, M. A. (2003). Two quantitative approaches for estimating content validity. *Western Journal of Nursing Research*, 25, 508-518.
- Yan, L. (2025). Are effects of academic stress on students' learning motivation and screen device usage consistent in different stressful scenarios? *Acta Psychologica*. Advance online publication. <https://doi.org/10.1016/j.actpsy.2025.105108>
- Yusoff, M. S. B. (2019). ABC of content validation and content validity index calculation. *Education in Medicine Journal*, 11(2), 49–54. <https://doi.org/10.21315/eimj2019.11.2.6>
- Zhang, X., Gao, F., Kang, Z., Zhou, H., Zhang, J., Li, J., Yan, J., Wang, J., Liu, H., Wu, Q., & Liu, B. (2022). Perceived academic stress and depression: The mediation role of mobile phone addiction and sleep quality. *Frontiers in Public Health*, 10, Article 760387. <https://doi.org/10.3389/fpubh.2022.760387>