

The Development of the Social Work Attitude Test for Students (SWATS-15)

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Abstract

Objectives: Ensuring that the students of social work possess the ideal attitude is critical for shaping effective social work professionals for the future. In this regard, the present research documents the development of the 15-item Social Work Attitude Test for Students (SWATS-15).

Methods: Using a sample of 263 social work students in India and using both exploratory and confirmatory factor analyses, the final set of items of the tool was established. **Results:** The tool has shown a high degree of validity and reliability across various statistical measurements (McDonald's Omega = 0.92). **Conclusion:** SWATS-15 has multiple real-world uses. While it can be used as a tool to identify whether an applicant for a social work program has the ideal attitude necessary for the program, it can also be used by organizations working with vulnerable and sensitive communities to select student interns.

Keywords

Social Work Attitude Test for Students, SWATS-15, IFSW, Tool Development, Factor Analysis.

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Ethical Consideration

The researchers secured ethical clearance from the lead author's institution (Ref: 2026/SJRIC/SSRE06). Informed consent from the respondents was secured through Google Form, and the collected data were stored in a password-protected computer. Furthermore, the researchers have adhered to the principles laid down in the Declaration of Helsinki (World Medical Association, 2024).

Declaration of Conflicting Interests

There are competing interests to declare.

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The Development of the Social Work Attitude Test for Students (SWATS-15)

Since its inception, social work as a profession has always stood for certain ethical principles, such as ensuring the dignity and acknowledging the worth of each individual, which guide social work practitioners even today (Elson, 1954). Mary Richmond, the mother of casework, a primary method of social work, believed that reasonable charity, based on facts, was necessary while helping the poor (McCormick, 1961). These ethical principles are not just theoretical, but guide social work professionals in making the right decisions in the field. Over the years, these principles have been organized sequentially and better articulated by certain well-known social work organizations and associations (National Association of Social Workers, 2026). In this regard, perhaps the most internationally recognized set of principles is the set of ethical principles as laid out by the International Federation of Social Workers (IFSW) in 2014.

These nine principles not only guide social work professionals but have also played an instrumental role in the establishment of the definition of social work by the Federation (International Federation of Social Workers, 2018). The nine ethical principles are as follows: 1. Recognition of the Inherent Dignity of Humanity, 2. Promoting Human Rights, 3. Promoting Social Justice, 4. Promoting the Right to Self-Determination, 5. Promoting the Right to Participation, 6. Respect for Confidentiality and Privacy, 7. Treating People as Whole Persons, 8. Ethical Use of Technology and Social Media, and 9. Professional Integrity (International Federation of Social Workers, 2018).

The integration of these principles in social work education is necessary for the formation of an ethical community of social work professionals who can think critically and execute their

respective roles in the face of unexpected scenarios (Sewpaul & Henrickson, 2019). While it is the responsibility of social work educators to formulate their social work programs in line with these principles, it is also necessary to acknowledge that many of these principles may naturally be reflected as values in students who choose to pursue social work. For example, human rights education is recommended by the United Nations for all school-going children (Robinson et al., 2020), and in one Swedish study, that surveyed 583 newly qualified social workers and 295 social work students, it was found that respondents who opted for social work had an inherent interest in human rights, social policy, and advocacy for the civil and political rights of others (Petersén, 2024). The respondents were found to be motivated to uplift the poor and the vulnerable and to contribute to social improvement. Similarly, social work has always held human rights and, in particular, the rights of the vulnerable in high regard. This is why the authors of the present article believe that such a set of values, which the International Federation of Social Workers promotes through its principles, will also be prevalent in students who opt for social work as a profession.

For social work educators, if the objective is to help shape the most ethical and professional social work practitioners of the future, then it must begin at the admissions level, where applicants must be screened for their attitudes towards vulnerable communities and tested to check whether they would adhere to some of the key ethical principles of social work as future professionals. Today, the lack of professionalism is identified as one of the main reasons for turnover among social work professionals (Liu et al., 2023), and professional integrity, which fosters professionalism, is one of the nine principles advocated by the International Federation of Social Workers.

With this background, the primary goal of this research is to scientifically develop an attitude test based on the ethical principles laid out by the International Federation of Social

Workers that can be deployed to check whether applicants for social work programs possess such key ethical values. This, in turn, could help identify whether they would be a good fit for a social work course and whether they are likely to choose to become social work professionals after completing their degree or pursue higher studies related to social work, as opposed to jumping to a different field altogether. Finally, the test will also help ensure that it can help identify applicants who would do more harm than good in the field as future social workers (Goulden, 2025) and enable college/university administrators to decide not to continue processing the application of such individuals in the interest of the welfare of vulnerable communities and larger society.

Existing Screening Process for Admissions in Social Work Programs

Internationally, there is a significant amount of variation in the screening process for admissions to social work programs. In Israel, for example, administrators examine both school matriculation scores as well as the scores of applicants in psychometric exams that test the applicants' quantitative as well as verbal reasoning, apart from their proficiency in English, before selecting the students (Levinger & Segev, 2018). It is also acknowledged that while the focus of admission screening procedures is primarily on selecting candidates who are likely to complete the course, judged by their scores and interviews, there is a need to improve attention towards the ethical principles and values in the social work profession during the selection process (Hughes et al., 2020). A similar analysis from Scotland showed that there was a great variation in what social work educators believed was the best approach to selecting candidates for social work programs. However, the approaches were mainly focused on academic ability, relevant work or personal experience, and social work values (Cree et al., 2018).

The paucity of research on this is concerning, and previous literature from America suggests that there is a need to develop a scientific approach to these selection processes (Coyle

et al., 2011), and in England, there have been longstanding concerns about the quality of social workers produced by the social work education system in the country (Baginsky & Manthorpe, 2015).

In India, just as in Scotland, there is no universally accepted method for admission to social work programs. This is unlike the system that currently exists for engineering students in India, who have certain centralized exams, such as the Joint Entrance Exam or JEE, to clear in order to be accepted into premier institutions in the country (Choudhury et al., 2023). Although many universities around the world, including those in Scotland, tend to examine whether a candidate possesses certain social work values apart from their academic scores, there is no universally accepted or scientifically developed tool that examines students' ethical values that are paramount to social work practice. Currently, some countries, such as America, require social work graduates to clear licensing examinations (Association of Social Work Boards, 2026).

While such examinations do test applicants on ethics, they are taken at a much later stage, when the applicant has graduated. Moreover, the test is designed to assess the applicants in four main areas: 1. Human Development, Diversity, and Behavior in the Environment, 2. Assessment and Intervention Planning, 3. Direct and Indirect Practice, and 4. Professional Relationships, Values, and Ethics (Association of Social Work Boards, 2011). Since clearing the test requires scoring well cumulatively, an individual who scores high on the first three areas and poorly on the fourth area related to ethics will still secure licensure, which is a serious concern. The present research is aimed at filling this gap and concern by developing a test that can help social work educators and administrators quantify ethical principles that are manifested as attitudes so as to screen applicants themselves and select the right candidates for admission into social work programs.

The Need for the Social Work Attitude Test for Students

While past academic performance has always been used to identify the potential suitability of applicants to educational programs, along with criminal records checks in some countries (Bald et al., 2022). However, since social work is a professional course that involves field placements, it is necessary to look beyond past academic achievement while selecting applicants. In one study that examined the reasons for failure in field placements among social work students (Roulston et al., 2023), it was discovered that apart from knowledge and skills, the lack of certain expected ethical values marked by poor professional conduct, breach of data protection regulations, poor understanding of anti-oppressive practice, and, in some instances, being oppressive towards clients, were some of the key reasons behind the failure of students in field placements.

This brings us to the discussion on the importance of values in social work and their inter-relationship with principles, and finally, attitudes leading to the determination of behavior. Values, which are deep-seated beliefs about what ought to be prioritized and ethically valued above others, eventually determine individuals' attitudes and behaviors (Nazirova & Borbala, 2024). The relationship between values and attitudes/behaviors is mediated by principles, and these principles act as guidelines that help determine the attitudes and behavior of individuals. The nine ethical principles as laid out by the International Federation of Social Workers emerge from values that are held in the highest regard in social work, and the hope is that social work professionals will adhere to these principles in their day-to-day role as professional social workers. The current challenge is the lack of a standardized test that can detect these ethical principles manifested as attitudes among applicants to social work programs. Through the scientific development of the present test, the researchers hope to fill this long-standing gap, which, in turn, can help administrators and social work educators become more objective in their selection of candidates for admission to social work programs.

Theoretical Foundation

The ethical principles laid down by the International Federation of Social Workers (IFSW) form the theoretical foundation for the present research (International Federation of Social Workers, 2018). These nine ethical principles are together known as the ‘Global Social Work Statement of Ethical Principles’, and each of the nine principles, as mentioned in the introduction section, has a significant role in fostering the appropriate attitude among social work professionals and students alike. This is one of the reasons why these ethical principles have been adopted at the national level as well by several countries, such as Jordan, Saudi Arabia, Kuwait, Lebanon, Bahrain, Yemen, Palestine, Iraq, Oman, Qatar, United Arab Emirates, and Syria (Sarhan et al., 2022).

To summarize the ethos of the principles themselves, it may be stated that the overall focus is on the protection and promotion of human dignity in the practice of social work as a profession (Chigangaidze et al., 2023). It is important to note that these nine ethical principles emerged from a rigorous two-year review process (International Federation of Social Workers, 2018a) and are widely accepted and practiced by social work professionals around the world. With this theoretical foundation, the objectives of the present research were determined.

Objectives

The present research has three main objectives:

1. To scientifically develop a publicly available tool that can quantitatively measure social work attitude among students.
2. To ensure that the tool is based on the principles laid down by the International Federation of Social Workers.
3. To check the validity and reliability of the tool.

Method

Since the main objective of the present study is to develop a scientifically validated tool to measure social work attitude among students, the researchers have employed both exploratory factor analysis (Watkins, 2018) and confirmatory factor analysis (Hox, 2021). With the ethical principles laid down by the International Federation of Social Workers as the theoretical base for the present research, the researchers set out to develop the various items of the tool.

Universe and Sampling

To ensure that the developed tool was widely applicable, the researchers collected data from five colleges and one university from three states- Karnataka, Tamil Nadu, and Assam. The colleges and universities were purposefully chosen because they were all accredited by the National Assessment and Accreditation Council, which ensures that the institutes of higher education in India are offering high-quality education (University Grants Commission, 2026). Another reason why the researchers chose these six colleges/universities was that they were easily accessible to the researchers, as some of them were employed there. In terms of the respondents, since the goal was to develop a tool to capture the right attitude of students towards social work, the researchers opted to include only Master of Social Work (MSW) students from these six colleges/universities. Although many students pursue a Bachelor's degree in social work before applying for a master's program in social work, this is not always the case.

Therefore, in order to ensure that the selected respondents had some social work ethics imbued in them through the programs, only those students who had at least attended one semester's worth of classes were included. Students who were not regular in class were excluded from the study. An online questionnaire with a consent form was sent to the respondents who were students of the 1st and 2nd year MSW program in the selected colleges/universities. The size of the universe after applying the inclusion and exclusion criteria was 396, and the final

sample size was 263, which was the number of students who responded to the questionnaire.

Thus, the response rate was 66.41 percent, which is sufficient (Hendra & Hill, 2019).

Now, let us examine the three stages that were involved in the development of the tool.

Stage 1: Identification of Initial Items

The researchers first laid out 45 statements, with five statements per principle. These statements were initially laid out by the first author and later shared with the other authors of the study to check for appropriateness and implicit bias. Out of the 45 statements, 27 items were worded positively, while the remaining 18 items were negatively worded. The negatively worded statements were included to prevent acquiescence, which is the tendency of respondents to agree to all the statements/questions without fully realizing the meaning of the statements/questions (Primi et al., 2019).

Once these items were listed, the content validity index was calculated as seen in Table 1 (Rusticus, 2023). For this, the researchers invited experts to help validate the items. It may be noted that to be invited, an individual needed to have a Master's Degree in Social Work, with a minimum of five years of post-MSW experience in social work. They also needed to be fluent in English since the items were in English, and they needed to be interested in promoting the nine ethical principles as laid down by the IFSW. Invitations were sent to seven experts, of whom six accepted. One declined due to a busy schedule. The experts were instructed about the purpose of the tool and were asked to rate each of the items on a scale of one to four, with 1 standing for: 'This statement definitely does not test the ideal attitude of a social work student/future social work professional' and 4 standing for: 'This statement definitely tests the ideal attitude of a social work student/future social work professional.'

The researchers then followed the appropriate steps to calculate the content validity index, which mainly involved the conversion of the responses by the experts into scores ranging

from 0-1 (Yusoff, 2019), with 1-2 responses being treated as 0 and 3-4 being treated as 1. Once the conversion was complete, the average score secured by each item was calculated. Items that had secured an average value below 0.8 were removed (Yusoff, 2019). This resulted in the removal of 16 items that did not meet the minimum threshold. Therefore, a total of 29 items were retained, which have been laid out in Table 1. Furthermore, the S-CVI-Ave or Average of I-CVI across the items was then calculated. This resulted in a value of 0.91, which is an excellent average (Halek et al., 2017).

Stage 2: Preparation for Deployment

The 29 items that were finalized in stage 1 were then included in the final questionnaire, which had three main sections. The first section included questions related to the personal background characteristics of the respondents, such as their age and religion. This would provide the readers with a clearer understanding of the general features of the respondents. The second section focused on their past experience or past connection (if any) with social work, such as having worked in a non-governmental organization or having a relative or family member who was a social worker. This was collected to gain a deeper understanding of the respondents' professional background related to social work. Finally, section 3 included the 29 items finalized in the previous stage. The respondents could choose one option from a list of five: Strongly agree, Agree, Neither agree nor disagree, Disagree, and Strongly disagree. Thus, a five-point Likert scale was adopted for this purpose (Emerson, 2017). These responses were later converted into scores of 0 (strongly disagree) to 4 (strongly agree).

Stage 3: Pre-testing and Deployment

A pre-test was also conducted with 12 respondents who met the inclusion criteria to check for errors and difficulty in comprehension of the items in the questionnaire (de Jong et al.,

2016). The respondents did not report any problems with any of the items in the questionnaire. This was followed by the final deployment of the online questionnaire among the respondents.

Results

The results of the present research have been presented in multiple sections. Firstly, the background characteristics of the respondents have been presented through the use of descriptive statistics. This is followed by the results of exploratory and confirmatory factor analyses. While the descriptive statistics and exploratory factor analysis were carried out using SPSS, version 30 (IBM, 2024), confirmatory factor analysis was carried out using AMOS, version 29 (IBM, 2022). Furthermore, to calculate the reliability of the scale, apart from using SPSS to calculate Cronbach's Alpha, the researchers also calculated McDonald's Omega (Madadzadeh & Bahariniya, 2025), using the R programming language (The R Foundation, 2026).

Descriptive Statistics

In the present study, the mean age of the respondents was 22.8 years, with a minimum of 20 years and a maximum of 42 years. The percentage analysis revealed that a slight majority of the respondents (56.3 percent) were female, while the remaining were male (43.7 percent), indicating an almost equal distribution of the respondents as per gender. Similarly, while 43.3 percent of the respondents had pursued BSW in the past, the remaining (56.3) had pursued some other undergraduate degree. The single largest majority (46 percent) of the respondents had chosen humanities during their 11th and 12th grade schooling. While the second year MSW students constituted 57 percent of the sample, the remaining (43 percent) were first year MSW students. More than one-third (38.6 percent) of the total respondents hailed from Kerala, followed by Karnataka (20.9 percent), Assam (15.6 percent), Tamil Nadu (14.4 percent), and students originally from other states (10.3 percent).

A slight majority of the respondents were Hindus (50.6 percent). This was followed by Christians (40.3 percent), and Muslims (8.0 percent), apart from Buddhists (0.8 percent) and people who followed other religions (0.4 percent). The single largest majority (44.9 percent) of the respondents were from the general category in terms of caste, followed by those from the OBC category (43.7 percent), while the remaining were from the SC/ST communities (11.4 percent). A little more than one-third (34.2 percent) of the respondents had heard about social work from a family member. This was followed by those who heard about it from their classmates/friends (27 percent). The single largest majority (47.1 percent) of the total respondents wished to work as a professional social worker after completing their degree, followed by those who wish to travel abroad for higher studies or settle down there (20.5 percent). While 17.1 percent of respondents plan to pursue higher studies in social work in India, 15.2 percent have other plans that may involve jumping to a different field. Almost one-third of the total respondents have had an experience of volunteering for an NGO (32.7 percent) before choosing this program. Interestingly, a little less than one-third (30.4 percent) of the respondents have a family member who is a professional social worker, possibly indicating the role of family members in motivating students to take up social work. Finally, a little more than a quarter (25.5 percent) of the respondents wished to work with street children if given a chance to do so.

Exploratory Factor Analysis

An exploratory factor analysis was conducted to identify the underlying factors in the scale (Goretzko et al., 2021). Since the goal was to discover the latent factors, principal axis factoring, which uses the original correlation matrix, was used (Schreiber, 2021). Furthermore, the researchers used Oblimin rotation with Kaiser normalization because it was hypothesized that the underlying factors are interrelated (Campillo et al., 2020). The researchers opted for a cut-off value of 0.5 (Cheung et al., 2024), which is generally considered sufficient in exploratory factor

analysis. This led to the extraction of 17 items and 2 factors. The first factor had all the positively worded statements. Specifically- Item 1, 9, 11, 13, 16, 20, 22, 26, 28, 34, and 37. The second factor had all the items that were negatively worded. These included items 19, 33, 38, 43, 44, and 45. Eventually, two other items were removed after carrying out the confirmatory factor analysis, namely items 19 and 43, since they were affecting the model fit. Exploratory factor analysis was once again carried out, and this led to the establishment of a fifteen-item two-factor scale, which has been named the Social Work Attitude Test for Students - 15 or SWATS-15.

Factorability and Sampling Adequacy

In the present research, sampling adequacy for factor analysis was examined through the Kaiser-Meyer Olkin (KMO) Measure of Sampling Adequacy, as seen in Table 2 which shows the Extraction Sums of Squared Loadings and Descriptive Statistics. The KMO value was found to be 0.846, which indicated that the sample was highly adequate for carrying out factor analysis (Li et al., 2020). Furthermore, the results of the Bartlett's Test of Sphericity were also found to be statistically significant ($p < 0.001$), adding further evidence that the sample was indeed factorable (Hauben et al., 2017).

Multicollinearity

Multicollinearity or an extremely high degree of correlation (Kim, 2019) can negatively affect the results of factor analysis (Goudarzian, 2023). In order to check for the presence of multicollinearity, the researchers conducted a correlation test between all the SWATS-15 items. The researchers noted that the highest correlation value was 0.765 between items 48 and 45, belonging to the second factor. However, since this value is below the correlation value of 0.8 and 0.9, it can be safely concluded that there was no multicollinearity present (Kim, 2019).

Extraction Sums of Squared Loadings

The extraction sums of squared loadings (Table 2), which represent the total variance explained, indicate the variance in the original data and are an important indicator in factor analysis. In the present research, this value was discovered to be 51.24 percent, which is in the general range for factors in the social sciences (UCLA, 2024).

Validity

Convergent validity is a measure of how a construct measured in different ways yields the same results (Boateng et al., 2018). For convergent validity to be established, it is suggested that the factor loadings should be 0.5 or more (Hair Jr et al., 2010). Table 3 shows the communalities and factor loadings and it shows that none of the items in each of the factors had a factor loading of less than 0.5. The lowest factor loading in factor 1 was item 1 with a factor loading of 0.569, and for factor 2, the lowest one was item 33 with a loading of 0.583. Therefore, convergent validity is said to have been established. It may be noted that since both factors jointly measure the same construct, discriminant validity was not required (Rönkkö & Cho, 2022). Finally, construct validity, which demonstrates how accurately a tool measures the construct it was designed to measure, was established through confirmatory factor analysis (Atkinson et al., 2011), which has been discussed in the later sections of this paper.

Reliability

The reliability of the tool, specifically, the Cronbach's alpha for internal consistency or composite reliability (Padilla & Divers, 2016), was checked using SPSS. For factor 1, Cronbach's alpha was found to be 0.904, and for factor 2, it was 0.846. The overall scale had a Cronbach's alpha value of 0.851, which is considered to be very good (DeVellis, 2012). Since McDonald's Omega is now considered a better estimate of reliability than Cronbach's alpha (Madadzadeh & Bahariniya, 2025), the researchers tested the internal consistency or the composite reliability of the 15-item scale through R (The R Foundation, 2026) and discovered an

Omega value of 0.92, which is considered very high (Romero-Tena et al., 2021). Thus, reliability in the form of composite reliability or internal consistency was established.

Confirmatory Factor Analysis

The 15-item model showed excellent fit as seen from the summary of the results of the confirmatory factor analysis in Table 5. As mentioned previously, two items- items 19 and 43 were removed from the then 17-item scale to improve the model fit. Multiple measures were used to determine the model fit. These include- CMIN/df - Chi-square divided by degrees of freedom, CFI- Comparative Fit Index, RMSEA - Root Mean Square Error of Approximation, NFI- Normed Fit Index, P Close- Probability of close fit. Factor 1 reflects the positive attitude, and Factor 2 reflects the negative attitude. Figure 1 shows the path diagram which is the visual representation of the model.

Bootstrapping with 1000 samples

In order to further test the model fit, the researchers carried out a Bollen-Stine Bootstrap procedure using 1000 bootstrap samples (Kim & Millsap, 2014). The results indicated that the model fit was appropriate ($p = 0.266$), adding further evidence to the robustness of the SWATS-15.

Scoring the Social Work Students Attitude Test (SWATS-15)

The final tool or SWATS-15 can be seen in Table 4. As the name suggests, it has a total of 15 items, which are divided into two factors. Factor 1 measures positive attitude, and factor 2 measures negative attitude. After the completion of the factor analysis procedures, which led to the removal of several items, the remaining items have been re-numbered while maintaining the same order. Factor 1 includes items 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, and 12. Factor 2 includes the following items: 10, 13, 14, and 15. Items in factor 2 must be reverse-coded after entering, and then, the scores of both factor 1 and factor 2 must be summed to secure the total score. Strongly

disagree is scored as 0, disagree as 1, neither agree nor disagree as 2, agree as 3, and strongly agree as 4. The possible minimum score is 0, and the maximum is 60.

A higher total score reflects the ideal attitude and greater adherence to the social work ethics, as laid out by the International Federation of Social Workers. For the purpose of clearer interpretation of the total scores, the researchers used the standard deviation method, wherein the standard deviation was subtracted from the mean score to obtain the low threshold (renamed as poor), and the standard deviation was added to the mean score to secure the high threshold (renamed as ideal), and the range in between was treated as the moderate score (Knutsson et al., 2010). This resulted in the following levels: poor: < 42 , moderate: $42 - 57$, and ideal: > 57 . In summary, this 15 item scale has two factors or parts, which together measure the social work attitude of the students. As mentioned previously, each of the items are based on the previously discussed principles laid down by the IFSW, which translate to the ideal attitude a social worker must possess while working in the field.

Discussion and Applications to Practice

One of the cornerstones of the success of any profession is how ethical the professionals in that particular profession are. This becomes increasingly important for a profession such as social work that is at the forefront of empowering vulnerable communities. While working with vulnerable and marginalized groups, it is extremely important for social work professionals and students to ensure that they remain cautious of the key ethical principles laid out by the International Federation of Social Workers (2018). It therefore becomes even more important for social work educators to ensure that their students are not only aware of these principles but also have the ideal attitude that fosters these ethical principles. In order to achieve this, it might be necessary to re-examine some of the objectives and expected outcomes of the program. It must be questioned whether the program is merely useful informationally, or whether it is contributing

to the overall evolution of social work students into social work professionals who respect the ethical foundations of the profession. In this regard, the SWATS-15 can be used in a variety of ways.

Firstly, it can be used as a tool to evaluate the suitability of applicants to pursue social work courses. Though the applicants themselves may or may not be aware of the ethical principles, their attitude can certainly be measured using the SWATS-15. We recommend that social work educators use SWATS-15 as part of a larger battery of validated tests while shortlisting candidates to social work programs. While SWATS-15 can be used to measure the ideal attitude of a social work student, other tests can measure factors such as knowledge about vulnerable communities and general competence that are necessary for successfully completing the specific social work program.

The second possible use of the tool is related to field work placements and internships. While selecting student interns to work with vulnerable communities, organizations could employ this test to ensure that the selected students have the ideal attitude towards such communities. While proper training can help improve aptitude, attitude is much more complex, and it would be better for organizations to select student interns who would be supportive of such communities.

The third possible use of the test would be to evaluate social work programs from the attitude perspective. At the end of every year, the final graduating batches could be requested to take SWATS-15, and a collection of results from the past few years could be used to identify whether the social work program has been successful in fostering ethical values in students. Although every batch is indeed unique, a general trend may be observed, and modifications to the program may be necessary. SWATS-15 may also be used to identify and select ideal youth/student volunteers for social welfare and community empowerment programs.

Although the volunteers themselves may not be social work students or trained, SWATS-15 can help detect whether the volunteers respect certain critical ethical values that are necessary for volunteering programs. One interesting feature of this particular test is that the ethical values that form the underlying theoretical structure for the items in the test are truly international. Moreover, the researchers took particular care in ensuring that the items are applicable cross-culturally as far as possible. Therefore, social work educators around the world could use this test without requiring any modifications. Today, with the evolution of AI, acquiring information related to the problems of communities is no longer a challenge (Hsu et al., 2022). However, the challenge lies primarily in fostering appropriate attitudes. A major risk to a community may emerge from individuals who might be professionally trained in the necessary skills of social work, but show little consideration for the community itself, leading to an unempathetic approach towards the problems of the members of the community. This would lead to the creation of an image from the outside that the members are being aided, but in reality, it might not be the case. SWATS-15 is a step towards the prevention of such scenarios. It is the collective responsibility of social work educators to ensure that the social workers that their program is helping to produce are not only well informed, skilled, and trained but that they also carry the ideal attitude, which is key in determining the success of social work interventions.

One of the limitations of the present test is that it examines the ideal attitude of social work students, but it does not test their aptitude. This is why the researchers recommend that SWATS-15 be used as part of a larger battery of tests while selecting students for social work programs. Moreover, the test may have to be translated into the native language of the test taker, in case they are unable to read English. Finally, with the rise of artificial intelligence or AI, those administering the test must ensure that there is some kind of supervision to avoid AI- assisted malpractice leading to misleading conclusions about the test-taker's social work attitude.

The present research was undertaken with three main objectives: 1) To scientifically develop a publicly available tool that can quantitatively measure social work attitude among students. 2) To ensure that the tool is based on the principles laid down by the International Federation of Social Workers, and 3) To check the validity and reliability of the tool. The effort to develop such a tool has led to the emergence of SWATS-15, a 15-item tool that can measure the ideal attitude that a social work student must possess, especially while working with vulnerable communities. The tool has shown very good validity and reliability, and can therefore be considered to be a reliable measure of the necessary attitude of social work students. Finally, in order to ensure that the tool is freely accessible to all, the tool, along with the scoring instructions, has already been made public. It is hoped that the tool will ultimately help in increasing the number of ethically grounded social work professionals in the future.

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Table 1*Content Validity Index*

Item	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Total	I-CVI
1	1	1	1	1	1	0	5	0.83
3	1	1	1	1	1	0	5	0.83
4	1	1	1	1	0	1	5	0.83
5	1	1	1	1	1	0	5	0.83
7	1	1	0	1	1	1	5	0.83
9	1	1	1	1	1	1	6	1
10	1	1	1	1	0	1	5	0.83
11	1	1	1	1	1	1	6	1
13	1	1	1	1	1	1	6	1
16	0	1	1	1	1	1	5	0.83
17	1	1	1	1	1	1	6	1
19	1	0	1	1	1	1	5	0.83
20	1	1	1	1	1	1	6	1
22	1	1	1	1	1	1	6	1
23	1	1	0	1	1	1	5	0.83
24	1	1	1	1	1	1	6	1
26	1	1	1	1	0	1	5	0.83

27	1	1	1	1	1	1	6	1
28	1	1	1	1	1	1	6	1
32	1	1	1	1	1	1	6	1
33	1	0	1	1	1	1	5	0.83
34	1	1	1	1	1	1	6	1
35	1	1	1	1	1	0	5	0.83
37	1	1	1	1	1	1	6	1
38	1	0	1	1	1	1	5	0.83
41	1	1	1	1	1	1	6	1
43	1	1	1	1	1	0	5	0.83
44	1	1	1	1	1	0	5	0.83
45	1	0	1	1	1	1	5	0.83

Note. I-CVI = Item Content Validity Index; S-CVI-Ave = Average of I-CVI across the items. S-CVI-Ave = 0.91.

Table 2*Extraction Sums of Squared Loadings and Descriptive Statistics*

Item	Total	Variance %	Cumulative %	Mean	SD	Corrected Item-total correlation	Alpha if Del.
swats1	5.988	39.919	39.919	3.36	0.70	.481	.843
swats9	2.561	17.074	56.992	3.59	0.65	.608	.838
swats11	.825	5.499	62.491	3.67	0.57	.616	.839
swats13	.752	5.010	67.502	3.54	0.66	.578	.839
swats16	.703	4.687	72.188	3.48	0.73	.505	.841
swats20	.632	4.215	76.403	3.62	0.61	.609	.838
swats22	.590	3.931	80.334	3.42	0.72	.441	.844
swats26	.569	3.792	84.126	3.59	0.64	.534	.841
swats28	.471	3.139	87.265	3.45	0.70	.553	.839
swats33	.428	2.850	90.115	2.45	1.42	.341	.860
swats34	.382	2.549	92.664	3.40	0.73	.509	.841
swats37	.344	2.296	94.960	3.34	0.77	.490	.842
swats38	.309	2.059	97.019	2.76	1.26	.544	.840
swats44	.256	1.705	98.724	2.52	1.27	.468	.846
swats45	.191	1.276	100.000	3.06	1.23	.562	.838

Note. Extraction Sums of Squared Loadings = 51.24% (Cumulative). Bartlett's test of Sphericity: Approx Chi sq-1914.485, df: 105, $p < 0.001$. KMO: 0.894. Cronbach's Alpha: Factor 1 = 0.904, Factor 2 = 0.846. Total Scale (15 items): Alpha = 0.85, Omega = 0.92.

Table 3*Communalities and Factor Loadings*

Item	Communalities (Extraction)	Factor Loadings (Pattern Matrix)
Factor 1: Positive Attitude		
swats1	.325	.553
swats9	.507	.668
swats11	.614	.786
swats13	.625	.804
swats16	.496	.719
swats20	.489	.663
swats22	.360	.611
swats26	.399	.606
swats28	.534	.739
swats34	.498	.719
swats37	.403	.639
Factor 2: Negative Attitude		
swats33	.346	.597
swats38	.757	.865
swats44	.540	.730
swats45	.789	.878

Note. Rotation Method: Oblimin with Kaiser Normalization.

Table 4*The Social Work Attitude Test for Students (SWATS-15)*

No.	Item	SD	D	N	A	SA
1	The poor deserve to be treated with respect, just like the rich.					
2	The old deserve to live with dignity, even if they are unable to work.					
3	Labourers deserve to be treated with dignity and respect.					
4	Everyone must be allowed to express their thoughts about a law.					
5	People must never use insulting language on social media.					
6	We must preserve the environment for future generations.					
7	The government must provide food, shelter, and clothing to the poor.					

- | | |
|----|---|
| 8 | It's important to respect colleagues at work. |
| 9 | People must be allowed to keep their private lives confidential. |
| 10 | Old people shouldn't be allowed to vote. |
| 11 | People must be free to decide whether they want to have children. |
| 12 | As a professional, one must reach the office on time. |
| 13 | People who are mentally ill are a burden to society. |
| 14 | Corruption is acceptable under some circumstances. |
| 15 | Sports are only for people who don't have a disability. |

Note. SD = Strongly disagree; D = Disagree; N = Neither agree nor disagree; A = Agree; SA = Strongly agree.

Table 5*Summary of Confirmatory Factor Analysis*

Measure	Estimate	Threshold
CMIN(χ^2)	112.374	—
df	82	—
CMIN/df	1.370	≤ 3 (Acceptable)
CFI	.984	≥ 0.95 (Excellent)
RMSEA	0.038	≤ 0.05 (Excellent)
P Close	0.889	> 0.05 (Excellent)
NFI	0.943	> 0.90 (Good)

Note. CMIN = Chi-square; df = degree of freedom; CFI = Comparative Fit Index; RMSEA = Root Mean Square Error of Approximation; NFI = Normed Fit Index; P Close = Probability of close fit.

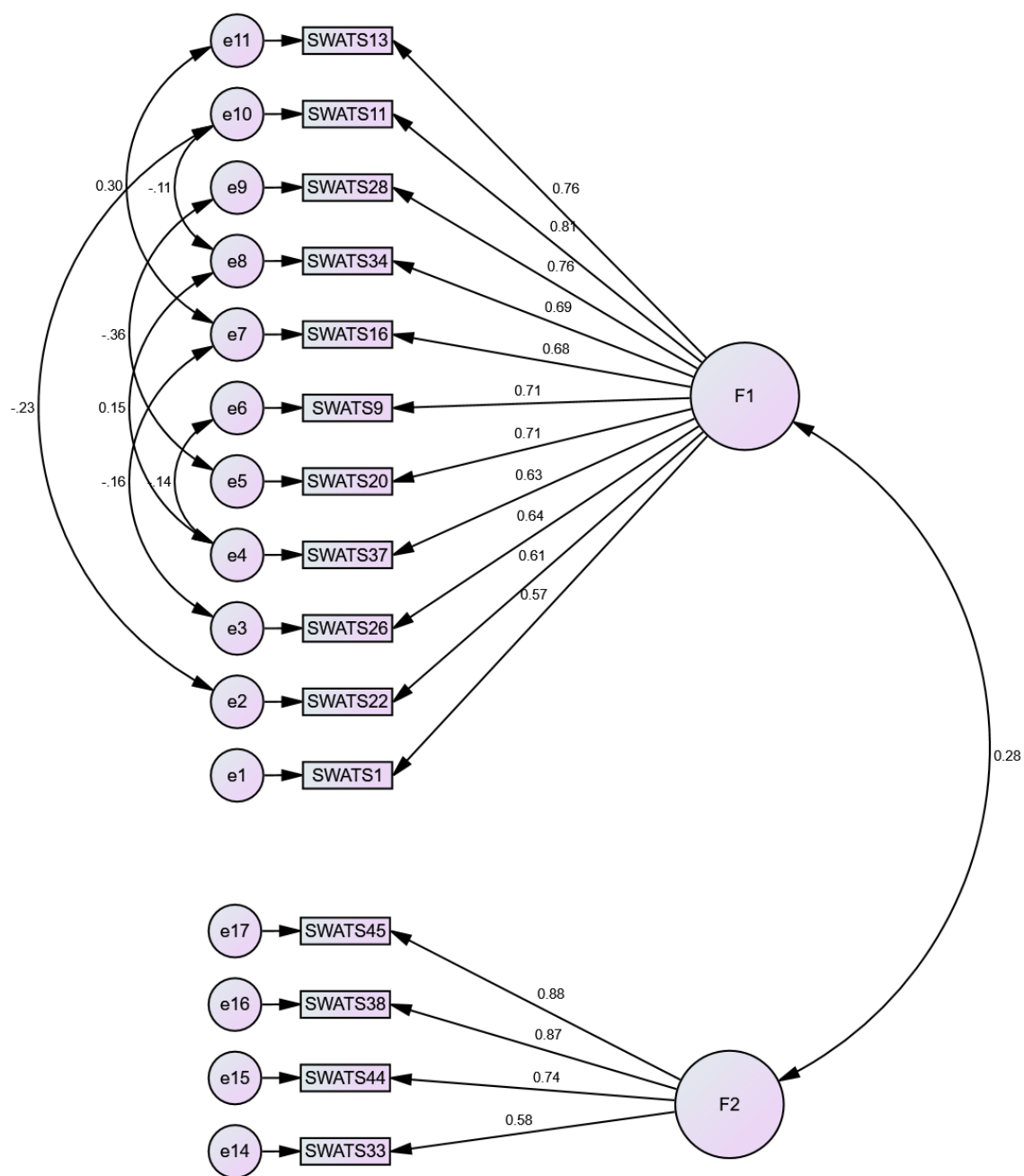


Figure 1 Path Diagram