

# A psychometric appraisal of the Jefferson Scale of Empathy using law students

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**Background:** A growing body of literature indicates that empathic behaviors are positively linked, in several ways, with the professional performance and mental well-being of lawyers and law students. It is therefore important to assess empathy levels among law students using psychometrically sound tools that are suitable for this cohort.

**Participants and methods:** The 20-item Jefferson Scale of Empathy – Health Profession Students Version was adapted for a law context (eg, the word “health care” became “legal”), and the new Jefferson Scale of Empathy – Law Students (JSE-L-S) version was completed by 275 students at Monash University, Melbourne, Australia. Data were subjected to principal component analysis.

**Results:** Four factors emerged from the principal component analysis (“understanding the client’s perspective”, “responding to clients’ experiences and emotions”, “responding to clients’ cues and behaviors”, and “standing in clients’ shoes”), which accounted for 46.7% of the total variance. The reliability of the factors varied, but the overall 18-item JSE-L-S yielded a Cronbach’s alpha coefficient of 0.80. Several patterns among the item loadings were similar to those reported in studies using other versions of the Jefferson Scale of Empathy.

**Conclusion:** The JSE-L-S appears to be a reliable measure of empathy among undergraduate law students, which could help provide insights into law student welfare and future performance as legal practitioners. Additional evaluation of the JSE-L-S is required to disambiguate some of the minor findings explored. Adjustments may improve the psychometric properties.

**Keywords:** empathy, law, student, Jefferson, sympathy

## Introduction

Empathy is a multidimensional construct,<sup>1</sup> generally defined as an ability to acknowledge, understand, and articulate how another person feels, thinks, or acts from that person’s perspective.<sup>2</sup> Empathy may include compassion, but it also requires more than the placing of oneself in the shoes of another. It requires “a shift in perspective away from oneself, to an acknowledgment of the other person’s different experience”.<sup>3</sup> It requires the ability “to regulate one’s own emotions, cognitively take on the perspective of another, share someone else’s emotional state and allow identification between oneself and someone else without confusing the self and the other”.<sup>4</sup>

## Roles and functions of empathy in lawyers

Empathy is essential for good communication and is an important attribute for many professions. Theorists within allied health and helping professions have long accepted

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that empathy is a cornerstone of professional practice and benefits many aspects of the practitioner–patient relationship.<sup>4</sup> Likewise, empathy is beneficial for lawyers and their clients. The effective practice of law requires lawyers to listen attentively to their clients, to understand the legal issues from the clients’ perspective, and to articulate advice on the law and legal processes in a language that the client can understand. The process of empathetic communication builds rapport and positive interaction between the lawyer and client and enhances the lawyer–client relationship.<sup>4</sup> It facilitates trust, enabling the client to be open and to disclose information that assists the lawyer to provide clear and accurately articulated legal advice. This assists lawyers to resolve clients’ legal issues in ways that take into account the way clients, jurors, and other nonlawyers think, rather than restricting legal strategies and arguments to those based purely on legal analysis.<sup>5</sup> The overall process increases clients’ level of satisfaction with their lawyers as clients perceive their lawyers to be more caring, understanding,<sup>6</sup> compassionate, and in tune with their needs.<sup>7</sup> Therefore, clients prefer lawyers they perceive as empathetic.<sup>8</sup>

The ability to practice empathy also assists lawyers to find and to finesse resolutions to legal disputes that satisfy clients whether through litigation or less adversarial methods.<sup>5,9–11</sup> Empathy is useful in less adversarial contexts, such as mediation and negotiation, which encourage resolution of legal disputes without resorting to litigation processes. The ability to see the dispute from multiple parties’ perspectives or to encourage others to do so facilitates effective resolution of the dispute.<sup>9</sup> In addition, empathy is integral to the practice of preventative law and therapeutic jurisprudence. In preventative law, lawyers advise clients in light of the clients’ individual needs and circumstances in ways that predict future legal issues and recommend preventative action.<sup>12</sup> In therapeutic jurisprudence, lawyers advise clients in ways that minimize the trauma and suffering that the legal system or the process of engaging in legal disputes may impose and provide for better immediate and long-term benefits for both the clients and society.<sup>12</sup> Therefore, the best outcome for the client’s legal issue is achieved by the lawyer using methods or perspectives that are not one dimensional. As empathy is a multidimensional concept, it is inherently beneficial to the practice of law.

Research also attributes empathy with motivating helping behavior in lawyers,<sup>13</sup> making lawyers more inclined to be ethical and to uphold professional standards,<sup>14</sup> and contributing positively to lawyers’ mental health and well-being,<sup>15</sup> that is, making for happier lawyers.<sup>16</sup> While research has found

that lawyers and law students are dissatisfied, distressed, and depressed at levels higher than those of the general population<sup>17–23</sup> and that law students’ levels of distress and dissatisfaction increase during law school despite having entered law school with normal levels of distress and dissatisfaction,<sup>19,24–27</sup> it has been acknowledged that it is difficult to determine the exact causes of the high rates of distress and depression among law students.<sup>21,28</sup>

Research suggests that law students tend to have low empathy.<sup>6,29–32</sup> Wilson et al compared the empathy levels between students of pharmacy and nursing and students of law and between first- and third-year students. It was found that law students had lower empathy levels than students of pharmacy and nursing, and where over the years empathy increased for pharmacy students and decreased for nursing students, it remained the same for law students. Overall, the research found significant sex differences in empathy, with women showing higher levels of empathy than men, which is consistent with previous research.<sup>29</sup>

## Measurement of empathy in lawyers: Jefferson Scale of Empathy

Despite the numerous ways that empathy can be important for the well-being of law students and capacity of practitioners, the measurement of this construct has not occurred in the law setting to the same extent that it has in some other professions. Medicine and other health professions have long recognized the importance of empathy among their populations, and as such, has been the focused attention in developing a number of empathetic measurement tools.<sup>33–35</sup>

Perhaps, the most significant empathy scale to date is the Jefferson Scale of Physician Empathy (JSPE),<sup>36</sup> which was initially developed to measure empathy among physician cohorts. The 20-item JSPE consists of four factors: “physician’s view from patient’s perspective”, “understanding patient’s experiences, feelings, and clues”, “ignoring emotions in patient care”, and “thinking like the patient”.

In recent years, the JSPE has been adapted and applied to students of a variety of professions in which empathy is considered important, such as nursing, dentistry, and other health-related fields.<sup>37–41</sup> This has since been retitled the Jefferson Scale of Empathy – Health Provider–Student (JSE-HPS) Version. In the JSE-HPS Version, the phrase “health care provider” replaced the term “physician”.

The number of factors has varied between health student cohorts and studies; however, there are clear patterns with items that tend to group together. For instance, notwithstanding the inclusion or exclusion of some other items, items 4,

9, 10, 13, 15, 16, 17, and 20 all tend to load onto the same factor, which purports to reflect the student's capacity to take their patients' perspective or similar.<sup>38,40,42</sup>

Psychometric properties of the JSE-HPS have also remained consistent between studies. Internal consistency for the full scale has been recorded at 0.75 when tested among 330 paramedic students in Australia<sup>42</sup>; 0.77, 0.78, 0.82, and 0.84, respectively, for separate studies involving hundreds of nursing and pharmacy students in the US<sup>37-39,41</sup>; and 0.93 among 613 Taiwanese nursing students where the inventory was translated into Chinese.<sup>40</sup> Median and mean item-total correlations for the JSE-HPS have been recorded to be  $>0.40$ .<sup>39,40,41</sup>

The growing number of examples mentioned earlier illustrates that the adaptation to the JSE-HPS has been largely effective for health students; hence, it stands to reason that the same could be achieved and be highly useful for other student cohorts where empathy is an important construct. Law students were identified as a population that could particularly benefit from a new revision; hence, it was decided to develop Jefferson Scale of Empathy – Law Students (JSE-L-S) Version. The aim of this study was to examine the psychometric properties of the JSE-L-S.

## Participants and methods

### Participants

The participants constituted a convenience sample of undergraduates from all year levels enrolled in the Faculty of Law, Monash University, during Semester 2 of 2014. Participation was voluntary and anonymous. Eligibility for inclusion in the study was based on enrollment in the Law Faculty. Students were excluded on account of their absence on the day of data collection, their decision not to participate, or their failure to return a completed survey.

### Instruments

The JSE-L-S (adapted for law students) was used to measure students' self-reported empathy. It comprised a paper-based questionnaire with 20 items. The items were scored on a 7-point Likert scale ranging from 1= strongly disagree to 7= strongly agree; total scores ranged from 20 to 140. Higher scores reflect higher self-reported empathy. The participants were required to indicate their level of agreement or disagreement with 20 items. Item modifications on the JSE-L-S only included changes from "health care" to "lawyer". The intent of the item stem was not changed in any other way, thereby ensuring that the context was consistent with the JSE-HPS.

Examples of items were "clients feel better when their lawyers understand their feelings", "lawyers should try to

understand what is going on in their clients' minds by paying more attention to their nonverbal cues and body language", and "lawyers should try to think like their clients in order to render better legal advice". Examples of reverse-scored items were "attention to clients' emotions is not important in client interviews" and "asking clients about what is happening in their personal lives is not helpful in understanding their legal issues".

### Procedure

Students were engaged by researchers at core unit lectures and invited to take part in this pen and paper study. While attendance at these lectures was not compulsory (students were able to listen to lectures online), this took place at the beginning of semester, when the majority of students attend and their learning is least likely to be interrupted. Participants were provided with an explanatory statement outlining the purpose of the research. The study instrument comprised five questions relating to demographic data, one question about whether the student has cared for a person with a permanent disability in his/her family, and 20 questions assessing various aspects of empathy. Participants were given the choice of completing the study either on paper or online, and the time taken to complete was ~10 minutes. Ethics approval was obtained from the Monash University Human Research Ethics Committee. Data were collected in July 2014. As the questionnaire was anonymous, return of the questionnaire implied consent was given, and the Monash University Human Research Ethics Committee did not require that written consent be obtained.

### Statistical analysis

The 20-items of the JSE-L-S were subjected to principal component analysis (PCA) with varimax rotation using SPSS (Version 20.0). Since this is the first reported attempt at testing the JSE-L-S and doubt over the association between items and factors, a PCA was used instead of a traditional exploratory factor analysis.<sup>43</sup>

### Results

All respondents were students of Monash University undertaking a law degree or a combination of law and one of arts, biomedical science, commerce, aerospace, music, science, medicine, and business.

The majority of participants (48.7%,  $n=134$ ) were undertaking arts/law, followed by 29.5% ( $n=81$ ) undertaking commerce/law. Of these, 66.9% ( $n=184$ ) were females and 33.1% ( $n=91$ ) were males. Participants were aged between 18 years and 25 years (mean =20.81,  $SD=1.60$ ). The majority of the participants (44.7%,  $n=123$ ) were in the second year

**Table 1** Distribution of participant demographics

Participant demographics	n	%
<b>Course</b>		
Bachelor of Laws	23	8.4
Bachelor of Arts/Bachelor of Laws	134	48.7
Bachelor of Biomedical Science/Bachelor of Laws	6	2.2
Bachelor of Commerce/Bachelor of Laws	81	29.5
Bachelor of Aerospace/Bachelor of Laws	6	2.2
Bachelor of Music/Bachelor of Laws	2	0.7
Bachelor of Science/Bachelor of Laws	3	1.1
Bachelor of Medicine/Bachelor of Laws	17	6.2
Bachelor of Business/Bachelor of Laws	3	1.1
<b>Year level</b>		
Year 1	2	0.7
Year 2	123	44.7
Year 3	70	25.5
Year 4	31	11.3
Year 5	26	9.5
Year 6	20	7.3
Year 7	3	1.1
<b>Sex</b>		
Male	91	66.9
Female	184	33.1
<b>Are you the eldest child in family?</b>		
Yes	151	54.9
No	124	45.1
<b>Have you cared for a person with permanent disability in your family, now or in the past?</b>		
Yes	23	8.4
No	252	91.6

of their degree, followed by 25.5% (n=70) in the third year. Over half of the participants (54.9%, n=124) were the eldest child in their family. The majority of the participants (91.6%, n=252) had not cared for a person with a permanent disability in their family. A full distribution of the demographic data is presented in Table 1.

## Principal component analysis

The data were considered suitable for a PCA: Kaiser–Meyer–Olkin measure of sampling adequacy (0.811) and Bartlett’s test of sphericity ( $\chi^2=1,320.51$ ,  $df=190$ ,  $P=0.000$ ), adequate sample size to variable ratio, and inspection of the correlation matrix for loadings  $>0.30$  suggested good relationships between items and factors.<sup>44</sup> An analysis of the 20 JSE-L-S Version items yielded a four-factor solution with eigenvalues  $>1.25$ , accounting for 46.72% of the total variance.

An inspection of the screen plot suggested ambiguity between a three-factor and four-factor construct. A parallel analysis suggested a four-factor construct.

Five items loaded on factor 1, which was labeled understanding the client’s perspective, with loadings ranging from 0.79 to 0.42. The top item within this factor was “lawyers

should try to think like their clients in order to render better legal advice”. Seven items loaded on factor 2, named responding to clients’ experiences and emotions, with loadings ranging from 0.70 to 0.46. The top item for this factor was “attentiveness of clients’ personal experiences does not influence legal outcomes” (reverse-scored item). Four items loaded on factor 3, which was labeled responding to clients’ cues and behaviors, with loadings ranging from 0.81 to 0.42. The top item loaded on factor 3 was “understanding body language is as important as verbal communication in lawyer–client relationships”. Two items with loadings of 0.81 and 0.79 made up factor 4, named standing in clients’ shoes.

Two reverse-scored items did not significantly load onto any factors and hence were excluded: item 18, “when dealing with legal issues, lawyers should not allow themselves to be influenced by strong personal bonds between clients and their family members”, and item 19, “I do not enjoy reading nonlegal literature”. The results of the rotated matrix are depicted in Table 2.

An examination of the interrelationships between factors was undertaken using Pearson’s correlations. Significant positive correlations were found between factors 1 and 2 ( $r=0.51$ ,  $P<0.001$ ), factors 1 and 3 ( $r=0.42$ ,  $P<0.001$ ), and factors 2 and 3 ( $r=0.38$ ,  $P<0.001$ ). No significant correlations were found between factor 4 and any of factors 1 ( $r=0.07$ ,  $P=0.237$ ), 2 ( $r=0.07$ ,  $P<0.286$ ), or 3 ( $r=-0.04$ ,  $P<0.534$ ).

## Reliability

Internal consistency of the JSE-L-S was solid, reflected by a Cronbach’s alpha score of 0.80. Internal consistency of individual factors was weaker at 0.73, 0.72, 0.58, and 0.58 for factors 1–4, respectively.

## Discussion

This is the first time that the psychometric properties and factor structure of the JSE-L-S have been investigated. Given the role of empathy in predicting mental health and professional outcomes for law students and future lawyers, the effective adaptation of a suitable empathy scale with strong measurement properties would be extremely valuable.

The results from the PCA suggested a four-factor solution explaining 46.72% of variance. This roughly approximates what was reported for the JSE-HPS<sup>38,40,42</sup> and is therefore a sign that the JSE-L-S was adapted effectively. However, there were a number of issues to be considered.

First, although four factors had eigenvalues  $>1.25$ , the existence of four distinct factors was not obvious from the screen plot, which calls into question the existence of the fourth

**Table 2** Correlation matrix (PCA with varimax rotation; n=275)

Item	Factor				h <sup>2</sup>	r <sub>it</sub>
	1	2	3	4		
Lawyers should try to think like their clients in order to render better legal advice (item 17)	<b>0.790</b>				0.67	0.52
I believe that empathy is an important factor in dealing with and resolving clients' legal issues (item 20)	<b>0.729</b>				0.66	0.54
Lawyers should try to stand in their clients' shoes when providing legal advice to them (item 9)	<b>0.677</b>				0.52	0.49
When dealing with legal issues, lawyers' understanding of the emotional status of their clients, as well as that of their families is an important component of the lawyer–client relationship (item 16)	<b>0.644</b>				0.58	0.24
Clients value a lawyer's understanding of their feelings which is therapeutic in its own right (item 10)	<b>0.415</b>				0.41	0.61
Attentiveness of clients' personal experiences does not influence legal outcomes (item 8R)		<b>0.704</b>			0.52	0.32
I believe that emotion has no place in dealing with and resolving of legal issues (item 14R)		<b>0.579</b>			0.52	0.44
Clients' legal issues can be resolved only by targeted attention therefore, lawyers' emotional ties with their clients do not have a significant influence on legal outcomes (item 11R)		<b>0.566</b>			0.39	0.40
Attention to clients' emotions is not important in client interviews (item 7R)		<b>0.554</b>			0.39	0.49
Asking clients about what is happening in their personal lives is not helpful in understanding their legal issues (item 12R)		<b>0.540</b>			0.35	0.44
Lawyers' understanding of their clients' feelings and the feelings of their clients' families does not influence legal outcomes (item 1R)		<b>0.529</b>			0.30	0.43
Clients feel better when their lawyers understand their feelings (item 2)		<b>0.462</b>			0.39	0.54
Understanding body language is as important as verbal communication in lawyer–client relationships (item 4)			<b>0.812</b>		0.66	0.42
Lawyers should try to understand what is going on in their clients' minds by paying attention to their nonverbal cues and body language (item 13)			<b>0.714</b>		0.57	0.28
Empathy is a therapeutic skill without which a lawyers' success is limited (item 15)			<b>0.436</b>		0.44	0.42
A lawyer's sense of humor contributes to a better legal outcome (item 5)			<b>0.421</b>		0.29	0.34
It is difficult for a lawyer to view things from clients' perspectives (item 3R)				<b>0.805</b>	0.66	0.41
Because people are different, it is difficult to see things from clients' perspectives (item 6R)				<b>0.785</b>	0.64	0.41
Eigenvalues	4.90	1.59	1.43	1.40		
Explained variance	24.54	7.97	7.18	7.02		

**Note:** Loadings shown in bold highlight item allocation for each factor.

**Abbreviations:** PCA, principal component analysis; R, reverse; h<sup>2</sup>, communality; r<sub>it</sub>, corrected item–total correlations.

factor. This factor consisted of only two items, which Velicer and Fava<sup>45</sup> claim is not enough for a stable factor structure. After consideration, it was decided to retain this fourth factor for several reasons. First, both items have fairly high loadings onto this factor with 0.81 (item 3) and 0.79 (item 6). Second, other adaptations have retained two-item factors. In fact, Hsiao et al<sup>40</sup> identified a factor consisting of the equivalent of two JSE-HPS items. Finally, an attempt was made to force a three-factor model, but the psychometric properties of the scale were inferior. For example, the third factor from this alternative model yielded a Cronbach's alpha score of only 0.20.

A second concern was the questionable level of internal consistency shown for factors 3 and 4, which both yielded a Cronbach's alpha score of 0.58. This is on the cusp, if not slightly below, what is considered acceptable for exploratory purposes.<sup>46</sup> Given this is the first time that the JSE-L-S has been used, extra leniency was applied; however, it was deemed prudent to highlight these weaknesses to help future investigations of the JSE-L-S contextualize their findings.

Thirdly, two items displayed low commonality with the other items on their respective factors; item 1 on factor 2 (0.30) and item 5 on factor 3 (0.29). Again, as this is the first time the JSE-L-S has been used, extra leniency was given in interpreting these low scores and both items were retained.

Finally, items 13 ( $r=0.28$ ) and 16 ( $r=0.24$ ) yielded item–total score correlations less than the accepted value of 0.30<sup>47</sup>; however, both items displayed reasonably high loadings on their respective factors as well as high commonalities with the other items on those factors. Again, it was decided not to delete these items from the PCA. A similar conclusion was reached by Fjortoft et al,<sup>38</sup> who discovered a number of lower item–total score correlations and argued that further validation studies are needed to provide additional construct validity data.

## Overall factor makeup

Notwithstanding the existence of a fourth factor and the fact that two items in the present study were lost, the overall pattern of item loadings is very similar to studies using the JSE-HPS.<sup>38,40,42</sup> The main difference is where a key factor



called “perspective taking” (or similar), containing approximately ten items, has often been discovered<sup>38,40–42</sup>; in the present study, the items that typically make up this factor have been largely split into two to form factors 1 and 3.

Hsiao et al’s<sup>40</sup> examination of Taiwanese nursing students is particularly similar to the present study. Of the 20 items in Hsiao et al’s examination, only one item loaded onto a factor consisting of completely different items. This was item 2 (clients feel better when their lawyers understand their feelings), which went from the seventh largest loading on factor 1 to the seventh loading (the weakest) on factor 2; hence, this was not a strong item in either case. The other items on the present factor 2 were all included in the Hsiao et al’s factor 2. Hsiao et al’s factor 3, called standing in the patient’s shoes, included items 3 and 6; the same two items as in the present factor 4. All items loading onto the JSE-L-S factors 1 and 3 can be found in Hsiao et al’s factor 1.

## Splitting perspective taking into two factors

A closer look at the items that broke away from the usual perspective taking factor to form the present factor 3 called responding to clients’ cues and behaviors provides a possible insight into how empathy might be a slightly different construct for lawyers compared with health professionals. For many physicians, nurses, and other health professionals, their time is predominately spent consulting with their patients face-to-face. For a health provider or student, when considering his/her level of empathy toward patients, the face-to-face context would generally be implied. For law students, this might not be true to the same extent. Of course, many lawyers will spend time consulting in meetings and in court; however, many will spend more time speaking on the phone, emailing, reading, or preparing documentation. This is not to say nonface-to-face tasks require less empathy per se. However, some law students might view this kind of empathy as a slightly different construct, one for which a readiness or capacity to read physical cues may be less integral.

## Other items of note

As this is the first time the JSE has been adapted for a non-health professional/student population, extra effort was taken to search for any patterns or anomalies among the item loadings.

### Families (item 16)

It was noteworthy that the item with the lowest item–total correlation (item 16) typically scores very high on this measure. In fact, multiple JSE-HPS studies have reported this item to have the highest item–total correlation.<sup>37,38</sup> A clue behind an

explanation is that this item mentions families’ emotions. It is likely that health students to a greater extent than some law students see it as their role to extend aspects of their service to family members. For instance, in palliative or intensive care settings, the family may play a crucial role in assisting the health provider.<sup>48</sup> In such cases, empathy toward family members would be particularly valuable. By contrast, law students might anticipate situations, such as custody disputes or will contests, where focusing on the emotional status of a family member could be viewed either as irrelevant or possibly even detrimental to the service provided to the client.

### Sense of humor (item 5)

Item 5 is perhaps the weakest of the 18 items that make up the JSE-L-S, given its small loading on factor 3 (0.42), low commonality with other items on that factor (0.29), and lower end item–total correlation (0.34). This item also does not appear to be consistent with other items in factor 3, which is named responding to clients’ cues and behaviors. While some students might understand “sense of humor” to include appreciation of comic timing and responding to other verbal and physical cues in the process of sharing jokes in a two-way engagement, the other interpretation of sense of humor might be as the lawyer creating the comical environment on his/her own. For the latter interpretation, this might have little to do with responding to cues and behaviors, which might have diluted the loading somewhat. Moreover, based on the wording, there does not appear an alternative factor with superior face validity for this item.

### Stand in clients’ shoes (item 9)

Another noteworthy observation was that item 9, “lawyers should try to stand in their clients’ shoes when providing legal advice”, loaded onto factor 1, whereas on face value, it should have loaded onto factor 4, which was named “standing in clients’ shoes”. This might not be a detraction from item 9, which showed fairly high communality with other factor 1 items and item–total correlation. Rather, it might reflect the questionable reliability already mentioned for factor 4 and the fact that this factor contains only two items.

An alternative explanation is that factor 4 measured something different. Its two items were both reverse scored and contained the words “it is difficult”. While some other items contained a similar negative message, no other items contained the word “difficult”. It is possible that students’ anticipation of law practice being difficult (or not difficult) confounded the intended responses to both of these questions in a similar way, and this resulted in these items being grouped together and also contributed toward a lack of any significant correlation between factor 4 scores and the

scores of any other factors. This alternative theory is taken with caution, particularly given both items on factor 4 had solid item–total correlations of 0.41. Future investigation of the JSE-L-S should monitor whether these two items group together, and if so, whether item 9 also loads onto this factor.

## Reflection on law student empathy

While not a primary focus of this investigation, it was noted that students in this study yielded lower empathy scores than what is typically seen among health students. While this is consistent with past research,<sup>29</sup> it is worth flagging that empathy might have a slightly different definition for law students. Exhibiting empathy for a client in a difficult legal situation may be very different to doing so for a sick patient. Given the minimal textual modifications made, the JSE-L-S does not fully explore this.

## Limitations

Being the first exploratory investigation of the JSE-L-S, additional leniency was applied when evaluating a number of this scale's psychometric properties. Ideally, it would not have been necessary to make mention of low item–total score correlations and communalities for some items, low internal consistency of some factors, small numbers of items on a factor, or an ambiguous screen plot. While the overall findings of the investigation were positive, these caveats limit the strength of these findings.

Another limitation is that the JSE-HPS underwent only minimal modification in wording during the creation of the JSE-L-S. While this was a logical starting point, given the established credentials of the JSE-HPS, this may not do justice to all the subtle differences between law students and health students nor the practice of law versus that of health professions.

Finally, data may have been impacted by nonresponse bias. While researchers are confident that the overwhelming majority of eligible students took part in the study, the changing and complex nature of enrollments made it impossible to know the exact response rate. It is likely that a very small number of students were absent and others may have declined to participate. It is possible that certain personality traits, experiences, or expectations are more common among these groups, in which case their nonparticipation could have skewed results in one direction or another.

Notwithstanding the limitations above, the present study used a large sample that was roughly representative of law students within a major Australian university. It therefore provides a useful platform for future comparisons or further refinements of the JSE-L-S.

## Conclusion

The results from the PCA suggest that the 18-item JSE-L-S is a valuable and reliable measure for determining empathy levels of undergraduate law students. The four-factor model comprised the following constructs: i) “understanding the client’s perspective”; ii) “responding to clients’ experiences and emotions”; iii) “responding to clients’ cues and behaviors”; and iv) “standing in clients’ shoes”.

Further investigation should reflect on the present observations relating to specific items as well as the patterns of item loadings by factor, as this may assist with further amendments to items to fit a law student population. In turn, this may improve on the psychometric properties of the JSE-L-S as reported in this article.

## Disclosure

The authors report no conflicts of interest in this work.

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