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Development and initial psychometric properties of the Barriers to Physician Compassion questionnaire

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ABSTRACT

Objective Physicians are expected to be compassionate. However, most compassion research focuses on compassion fatigue—an outcome variable—rather than examining the specific factors that may interfere with compassion in a physician's practice. This report describes the development and early psychometric data for a self-report questionnaire assessing barriers to compassion among physicians.

Methods In 2011, a pilot sample of 75 physicians helped to generate an initial list of barriers to compassion. A final 34 item Barriers to Physician Compassion (BPC) questionnaire was administered to 372 convenience-sampled physicians together with measures of demographics, practice-related variables, stress, locus of control and trait compassion.

Results The barriers to physician compassion were not one-dimensional. Principal component analysis revealed the presence of four distinct, face-valid and discriminable factors—physician burnout/overload, external distractions, difficult patient/family and complex clinical situation. All barrier components had adequate internal reliabilities (>0.70) and meaningful patterns of convergent and divergent validity.

Conclusions Remaining compassionate in medical practice is difficult. With the newly developed BPC questionnaire, specific barriers to compassion can be assessed. These barriers illuminate potential targets for future self- and practice management, interventions and compassion training among physicians.

INTRODUCTION

Professional guidelines in healthcare contexts across the world emphasise the need for physicians to practise medicine with compassion. The first principle of medical ethics in the American Medical Association's (AMA) guidelines, for example, states that: "A physician shall be dedicated to providing competent medical care, with *compassion* and respect for human dignity and rights".¹ Globally, comparable sentiments are reflected in most codes of ethics for healthcare professionals.² Compassion is increasingly seen as a duty in physician–patient relationships.³

More important than this professional and legal mandate is the fact that patients expect that they will be listened to, understood and cared for by their doctors. In many instances, patients are mentally or physically suffering and want to be relieved of their ailment or discomfort. Patients can feel helpless, vulnerable and, for the first time as adults, may have to depend on others to survive. Many become physically and psychologically isolated by their illness. Some have to deal with the prospect of imminent death and leaving their families

behind. Unsurprisingly, patients expect their doctor to be compassionate.^{4–8} In addition to fulfilling a professional duty, research is increasingly suggesting that physician compassion is associated with better outcomes, including patient satisfaction, better quality doctor–patient interactions and improved long-term adjustment.⁶ Considering how central compassion is to professional ethics and patient wishes, there are few studies on the subject. There are more studies examining empathy (an aspect of compassion) with patient outcomes.^{9 10}

While compassion is often confused with empathy, the terms are distinct. Linguistically, the term compassion is derived from the Latin words *com*, which means 'together with', and *pati*, which is 'to bear or suffer'.³ According to some,³ the two key elements of compassion are

1. an ability and willingness to enter into another's situation deeply enough to gain knowledge of the person's experience of suffering;
2. the desire to alleviate the person's suffering or, if that is not possible, to be of support by living through it vicariously.

Conversely, empathy is the cognitive and/or emotional perspective taking of the experience of the patient.¹¹ Empathy is necessary to be compassionate, but one can be empathetic without being compassionate. A busy doctor in an emergency room can appreciate the stomach ache of a patient (empathy) but might choose to ignore it while rushing to a much delayed lunch break. The physician empathised with the patient briefly but did not act with compassion. So while both compassion and empathy involve appreciating another's experience, compassion is distinct insofar as it is accompanied by the desire to alleviate suffering.¹²

Though practising compassionately is expected and benefits patients^{13 14} and doctors,^{14–16} remaining compassionate over time is difficult. Compassion is not a simple behaviour that can just be 'turned on' because it is expected. As a prosocial behaviour, the expression of compassion results from a complex interplay of multiple variables involving the individual (eg, personality type), the specific situation and the environment where the compassionate act takes place.^{17 18} Because of this complexity, compassion can be easily disrupted.^{19 20}

The current literature on compassion in medicine unfortunately has not examined this complexity or considered *specific* barriers to compassion. Instead, most studies have concentrated on compassion fatigue,^{21–23} a phenomenon that impacts between 20% and 70% of physicians.²⁴ However, while physician psychological issues, the shift to a business/profit model of medicine and chronic stress can also affect physician compassion,^{22 23} the



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systematic empirical study of barriers has been absent. This absence noted, theoretical and qualitative works on possible barriers to a related construct—empathy—are available. Factors implicated as barriers to empathy include stress, time pressure and anxiety.^{25–30} Such factors may also interfere with physician compassion as may aspects of the patient, clinical context and work environment.^{31–32} In addition, medical training itself has been posited as a barrier to empathy because empathy is occasionally seen as a threat to accurate diagnosis and objective management.³³

In extending current understanding in this critical area, the current report documents the factors that physicians experience as barriers to being compassionate in clinical contexts. Specifically, this report aimed to develop and report the psychometric properties (questionnaire internal structure and convergent/divergent validation) of a newly developed physician self-report questionnaire on barriers to compassion. Based on a recent theoretical work on barriers to compassion,³² we expected that physicians would report factors beyond stress and fatigue as interfering with their ability to be compassionate.

METHODS

Participants

Practising medical practitioners were recruited across 30 days in November and December of 2011 by non-random convenience sampling via (a) lecture series conducted by the first author at medical conventions and grand rounds and (b) personal contacts and referrals in hospitals in the Philippines. The inclusion criteria were (1) that the doctor was currently practising medicine in the Philippines and (2) could speak and write in English. An exclusion criterion excluded doctors who did not have any patient contact. Participants recruited via lectures were informed prior to lectures that a questionnaire would be distributed, that participation was voluntary and that returning questionnaires implied consent. Completed questionnaires were collected after the sessions and lectures. Completing participants were offered a \$NZ 3 gift in the form of a New Zealand souvenir (stuffed toy or chocolate).

Questionnaires

To help establish preliminary discriminant and convergent validity for the components uncovered in analyses of the Barriers to Physician Compassion (BPC) questionnaire, we administered five additional questionnaires. Although the absence of prior work constrained confidence, we expected that barrier scores would be lower among female physicians, negatively associated with trait compassion and lower among those reporting greater non-governmental organisation (NGO)/volunteer work. Equally, greater stress, higher patient loads and a more external locus of control should predict greater barrier scores.

1. Demographics and medical education. A questionnaire elicited information regarding age, sex, country of birth, year graduated from medical school and country where medical education was obtained.
2. Clinical practice. We assessed 10 aspects of clinical practice that may be relevant to compassion. The items included specialisation, duration of practice, average patient load per week, average duration of consultations (minutes), practice setting information, sources of income and a subjective assessment of total work load.
3. Perceived stress. Physician stress can negatively impact the ability to practice with compassion,³⁴ so the Perceived Stress Scale (PSS) was included.³⁵ The 14-item PSS is an established short measure of perceived stress and assesses the

Table 1 Descriptive statistics and reliabilities for all measures

Measure	Reliabilities in prior work	Internal reliability (Cronbach's α)
Perceived stress scale	0.84–0.86	0.78
Work locus of control scale	0.75–0.85	0.82
Compassionate love scale	0.95	0.92

extent to which situations are experienced as being stressful, unpredictable and overloading. The frequency of thoughts and feelings across the past month are rated using a 0 (never) to 4 (very often) metric. The PSS is highly reliable (Cronbach's α of 0.84, 0.85 and 0.86 in three initial samples) and widely used in studies of physician stress.^{36–37} The reliability in the current sample was adequate ($\alpha=0.78$).

4. Work Locus of Control Scale (WLCS). We included the WLCS³⁸ because barriers to compassion likely include both internal and external locus of control factors.³⁹ The WLCS is a 16-item scale on which participants use a 1 (disagree very much) to 6 (agree very much) metric. The scale has been extensively used in studies of health professionals^{40–41} with reliability estimates in the 0.75–0.85 range. Reliability in the current sample was $\alpha=0.82$.
5. Compassionate Love Scale (stranger/humanity version). An abridged version (stranger/humanity) of the compassion love scale was included.⁴² We administered the stranger/humanity version rather than the full version of this scale because of our focus on physician's interactions with their patients. To

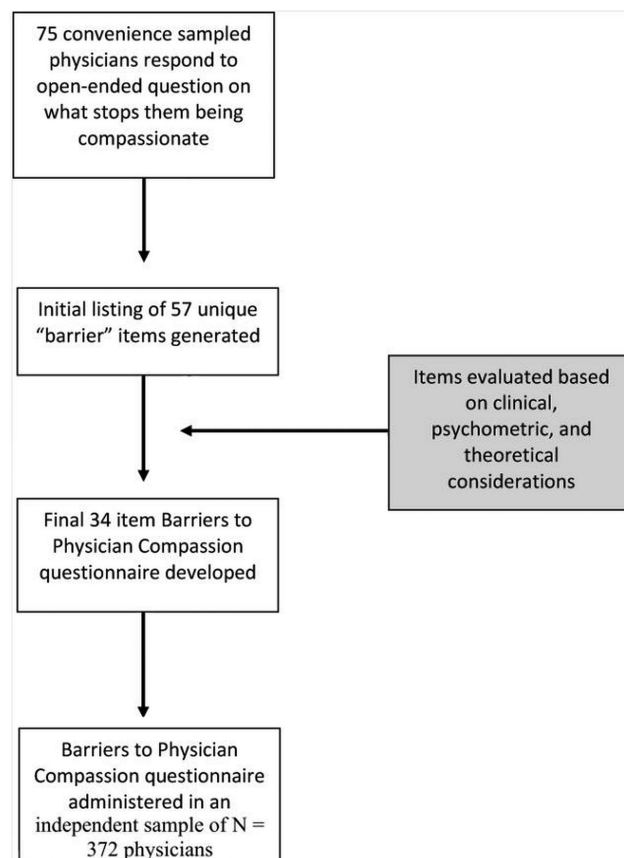


Figure 1 Development of the Barriers to Physician Compassion questionnaire.

minimise participant burden, we selected the eight items (from the original 21) with highest item-to-total correlation (greater than 0.7). Items consisted of different manifestations of compassion towards strangers scored from 1 (not at all true of me) to 7 (very true of me). The Cronbach's α in the original study⁴² was 0.95 and was 0.92 in the present report. (Please refer to [table 1](#) for reliabilities.)

6. BPC questionnaire

A. Development of the BPC

As there are no existing validated questionnaires on barriers to compassion in medical practice, the authors developed the BPC (refer to [figure 1](#)). We initially generated items by asking a separate group of doctors what they perceived as barriers to being compassionate in the clinical context. An independent, convenience sample of 75 physicians of various specialties from the USA, New Zealand, Australia and the Philippines were recruited via email, social media and word of mouth. An initial list of 57 barriers to compassion was generated based from the survey of physicians, the authors clinical experience, psychometric theory and theoretical considerations from

compassion research. The two authors, one a health psychology academic and the other a practising academic psychiatrist, examined the list for item redundancy, clarity and content validity. A final list of 34 items to comprise the BPC questionnaire was agreed upon. The 34 items in the final questionnaire assessed barriers to compassion in several domains consisting of (1) physician fatigue or stress, (2) patient characteristics, (3) characteristics of patient's family, (4) environmental conditions, (5) institutional demands, (6) clinical situation, (7) time pressure and (8) workload.

B. Administration of the BPC

The BPC was then administered to a second, independent sample of physicians. Physicians were provided with a definition of compassion and then asked to rate the extent to which each of the 34 BPC items interfered with their ability to be compassionate. As the sample is well educated and should be better able to discriminate in self-report,^{43 44} a 1 (minimal) to 7 (a great deal) metric was used. (Please refer to [table 2](#) for the BPC questionnaire.)

Table 2 Barriers to Physician Compassion questionnaire

Compassion in medicine is the desire to care, nurture, understand and relieve suffering and distress of the patient. How much do the following factors prevent or stop you from expressing compassion in your clinical work?								
		Minimal					A great deal	
1	Feeling burned out	1	2	3	4	5	6	7
2	Having a limited time for consultations	1	2	3	4	5	6	7
3	Having a large case load of patients	1	2	3	4	5	6	7
4	Multiple interruptions during the consultations (eg, pages, texts)	1	2	3	4	5	6	7
5	Physical environment is not conducive for a consultation (eg, noise)	1	2	3	4	5	6	7
6	Culture of defensive medicine	1	2	3	4	5	6	7
7	Prior difficult interactions with the patient's family	1	2	3	4	5	6	7
8	Sick of hearing the same problem again and again	1	2	3	4	5	6	7
9	Patient is difficult, rude or obnoxious	1	2	3	4	5	6	7
10	Feeling tired or fatigued	1	2	3	4	5	6	7
11	Clinical situation is very complex	1	2	3	4	5	6	7
12	Current treatments are not working	1	2	3	4	5	6	7
13	Having too many patients to see in a limited time	1	2	3	4	5	6	7
14	Many distractions during the consultation	1	2	3	4	5	6	7
15	Concern that patients may complain or sue	1	2	3	4	5	6	7
16	Interference from family members	1	2	3	4	5	6	7
17	Patient is not happy with you	1	2	3	4	5	6	7
18	Patient does not follow your recommendations	1	2	3	4	5	6	7
19	You are tired of practising medicine	1	2	3	4	5	6	7
20	You are not sure if the patient will get better	1	2	3	4	5	6	7
21	Having too many non clinical duties (eg, administration, teaching)	1	2	3	4	5	6	7
22	Too many people present during your consultations	1	2	3	4	5	6	7
23	Too much paperwork and documentation	1	2	3	4	5	6	7
24	Family of your patient is not happy with you	1	2	3	4	5	6	7
25	Patient has irrational beliefs about his condition and treatments	1	2	3	4	5	6	7
26	Patient is unkempt and malodorous	1	2	3	4	5	6	7
27	Your personal problems	1	2	3	4	5	6	7
28	Feeling impatient	1	2	3	4	5	6	7
29	Current treatments have caused unexpected adverse effects	1	2	3	4	5	6	7
30	Patient comes from a different sociocultural/ ethnic background	1	2	3	4	5	6	7
31	You are rushing to see the next patient	1	2	3	4	5	6	7
32	Patient is difficult to understand	1	2	3	4	5	6	7
33	Patient is in denial regarding their condition	1	2	3	4	5	6	7
34	What you are dealing with is beyond your comfort level	1	2	3	4	5	6	7

Data analysis

Assessment of the psychometric properties of the BPC questionnaire occurred in two stages. The first stage was to assess the underlying structure of the barriers questionnaire by reducing or summarising the initial list of 34 barriers to compassion items to a smaller set of components or ‘themes’. This was done using a combination of the unconstrained and constrained principal components analyses (PCA). The second stage of the analysis was intended to provide initial evidence of convergent and divergent validation for the resulting components. In the current report, correlational analyses (Spearman’s r) were used to examine associations between scores on the barrier components or ‘themes’ and measures of convergent and divergent validation (demographics, clinical practice variables, locus of control, stress and trait compassion).

Ethical permission

Permission to conduct the study was obtained from conference organisers, participating hospitals, clinics and the University of Auckland Human Participants Ethics Committee (Ref: 7640).

RESULTS

The BPC was administered to 372 practising physicians from the Philippines. Forty-one per cent were recruited from lectures. Forty-six per cent were male and 54% female, with a median age of 42 years, and were (on average) 18 years postgraduation from medical school. The overwhelming majority were educated in the Philippines with a comparable portion engaged in procedural/technology-focused specialties (eg, surgery, obstetrics/gynaecology, ophthalmology, radiology and anaesthetics) versus less procedurally focused specialties (eg, internal medicine, general practice, psychiatry, paediatrics, neurology, rehabilitation medicine and emergency medicine).

The structure of the BPC questionnaire

Prior to performing an unconstrained PCA, the suitability of the data for analysis was assessed. Inspection of the correlation matrix showed the presence of many coefficients of 0.3 and above. The Kaiser–Meyer–Olkin value was 0.945 and Bartlett’s Test of Sphericity was significant ($p < 0.001$), supporting the factorability of the correlation matrix.⁴⁵ An initial (unconstrained) PCA revealed the presence of five components with eigenvalues greater than 1, explaining 64.2% of the variance. A visual inspection of the scree plot⁴⁶ (see figure 2) revealed a substantial drop in explained variance after the second component and another after the fourth. We pursued a four-component solution based on (1) inspection of the item loadings and evaluation by the authors of what the constellation of items appeared to assess (face validity), and (2) our theoretical expectation of a differentiated barrier construct.

We then ran a PCA constrained to produce four components (see table 3). Consistent with standard psychometric practice, values of 0.50 were used to determine loadings. Using this criterion, item 8 did not load on any component. The first barrier component was defined by five items regarding physicians feeling pressured, tired or fatigued—a ‘burnout/overload’ component. The second was a grouping of 10 items centred on environmental characteristics, being interrupted during clinical work, having too much paperwork, too many people present and the like. This was labelled an ‘external distraction’ component. The third component reflected a grouping of seven items that clustered around a difficult patient or family. This component was composed of items including ‘patient is difficult, rude or obnoxious’, ‘interference from family members’ and ‘patient is not happy with you’. The final component—‘complex clinical situation’—was defined by 11 items centred on aspects of the patient and their clinical condition being highly complex or

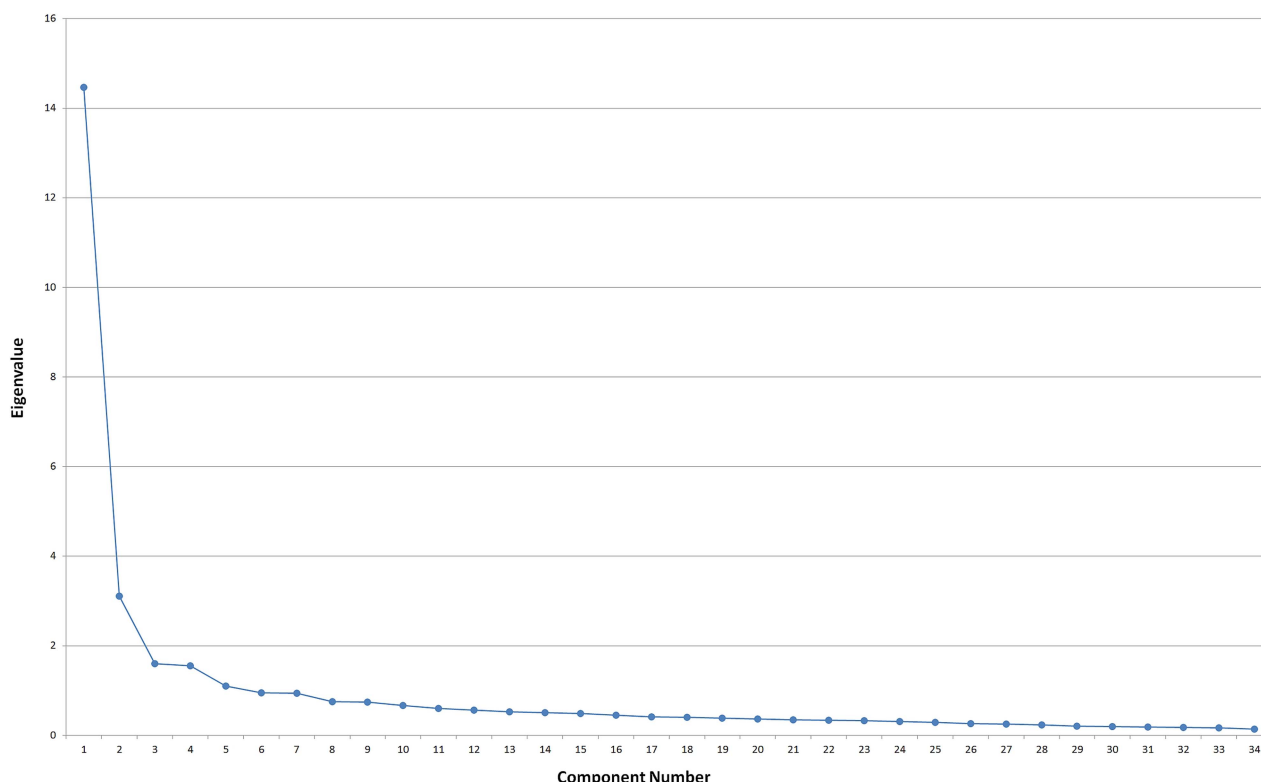


Figure 2 Scree plot following unconstrained PCA on 34 item Barriers to Physician Compassion questionnaire.

demanding. With one exception, all items loaded on a single component; item 15 co-loaded on the external distraction and difficult patient/family component but, because of a higher loading on the former, was only allowed to load on the distraction component. Internal reliabilities for the burnout/overload ($\alpha=0.89$), external distraction ($\alpha=0.90$), difficult patient/family ($\alpha=0.91$) and complex clinical situation components ($\alpha=0.92$) were all strong. The overall reliability for the 33-item scale was $\alpha=0.96$. A full table of loadings is shown in [table 3](#).

Convergent and divergent validation

As can be seen in [table 4](#), only three of the four barriers (burnout/overload, difficult patient/family and complex clinical situation) were weakly (negatively) associated with trait compassion, suggesting that our barrier constructs are distinct from trait compassion. Burnout/overload component scores were higher among younger physicians. These scores were lower among physicians reporting longer initial or follow-up consultation times, among physicians reporting a greater proportion of private or NGO work, but were positively associated with the proportion of public work. Burnout/overload barrier scores were greater among those also reporting high clinical and overall workloads as well as greater stress.

The external distraction barrier showed a generally similar pattern of links to demographic and clinical characteristics as well as other convergent measures. It was, however, not related to age, sex or years of practice and was not related to trait compassion. Additionally, although many links were in the same direction as those seen for the burnout/overload barrier, contrasts between the coefficients showed that the external distraction barrier was less closely linked to the proportion of work in the public sector as well as to overall and clinical load ratings.

The remaining two components—difficult patient/family and complex clinical situation barriers—were most readily distinguished because both were linked to a greater external work locus of control. The difficult patient barrier was not linked to any demographic or most of the practice variables. Ratings on the complex clinical situation barrier were higher among younger physicians.

As can be seen in [table 4](#), the four-barrier components were positively related to one another. Spearman's correlation coefficients assessing the associations between the four-barrier components ranged from 0.40 to 0.75 (see bottom panel, [table 4](#)).

DISCUSSION

Outside of compassion fatigue, specific impediments to practising with compassion have not been systematically studied. This report extends the literature by providing preliminary psychometric data on a questionnaire that measures specific barriers to compassion among doctors. Our analysis showed the presence of four discriminable, distinct, reliable and valid barriers to compassion in medicine. These barriers are (1) physician burnout/overload, (2) external distractions, (3) difficult patient/family and (4) complex clinical situation. The identification of specific barriers to compassion is unsurprising and suggests that physicians are aware of what interferes with their compassion. Our results indicate that barriers can be identified and measured.

Our current report helps extend current thinking beyond the concept of compassion fatigue. Compassion fatigue is an outcome that likely results from diverse long-term processes.⁴⁷ However, the concept of compassion fatigue does not directly illuminate the specific aspects of physician's work that create it. Burnout, for example, has been suggested to contribute to compassion fatigue, poorer patient care⁴⁸ and a decreased ability to

empathise.⁴⁹ As in our study, prior works have shown negative associations between age and professional burnout.^{50 51}

Our data suggest that complex clinical situations may interfere with physician compassion. Uncertainty and/or a failure of treatments to lead to improvement are likely experienced as threatening (particularly by less experienced clinicians). Situations in

Table 3 Component loadings for 33 items in a four-component analysis of the 34-item Barriers to Physician Compassion scale in a sample of 372 Filipino physicians

Item	Component			
	1	2	3	4
1 Feeling burned out	0.805			
2 Having a limited time for consultations	0.767			
3 Having a large case load of patients	0.839			
10 Feeling tired or fatigued	0.717			
13 Having too many patients to see in a limited time	0.665			
4 Multiple interruptions during the consultations (eg, pages, texts)		0.606		
5 Physical environment is not conducive for a consultation (eg, noise)		0.613		
6 Culture of defensive medicine		0.647		
11 Clinical situation is very complex		0.581		
12 Current treatments are not working		0.600		
14 Many distractions during your consultation		0.634		
15 Concern that patients may complain or sue		0.551	0.522	
21 Having too many non-clinical duties (eg, administration, teaching)		0.519		
22 Too many people present during your consultations		0.535		
23 Too much paperwork and documentation		0.538		
7 Prior difficult interactions with the patient's family			0.629	
9 Patient is difficult, rude or obnoxious			0.810	
16 Interference from family members			0.604	
17 Patient is not happy with you			0.783	
18 Patient does not follow your recommendations			0.706	
24 Family of the patient is not happy with you			0.776	
25 Patient has irrational beliefs about his/her condition and treatments			0.595	
19 You are tired of practising medicine				0.504
20 You are not sure if the patient will get better				0.620
26 Patient is unkempt and malodorous				0.598
27 Your personal problems				0.626
28 Feeling impatient				0.647
29 Current treatments have caused unexpected adverse effects				0.607
30 Patient comes from a different sociocultural/ ethnic background				0.569
31 You are rushing to see the next patient				0.588
32 Patient is difficult to understand				0.602
33 Patient is in denial regarding their condition				0.583
34 What you are dealing with is beyond your comfort level				0.539

Note: Item 8 (sick of hearing the same problem again and again) did not load on any of the four components and was removed from the analysis.

Table 4 Correlations between four Barrier to Physician Compassion components, demographics, practice variables and psychological characteristics

	Barrier to compassion component			
	Burnout (B)	External distraction (ED)	Difficult patient or family (DP)	Complex clinical situation (CC)
Demographics				
Age	-0.29**			-0.11*
Sex	0.11*			
Practice variables				
Years of practice	0.26**			0.10*
Patients/week	0.14**			
Mins. initial consult	-0.11*			
Mins. follow-up	-0.19**			-0.11*
% work private	-0.27**	-0.14**		
% work public	0.32**	0.16**		0.10*
% work NGO	-0.18**	-0.17**	-0.12*	-0.14**
Psychological				
Clinical load	0.33**	0.14**		
Overall load	0.38**	0.12*		
Stress	0.35**	0.31**	0.17**	0.34**
Compassionate Love	-0.14**		-0.15**	-0.16**
Work locus of control			0.11*	0.21**
Barrier components				
Burnout	-	0.58**	0.40**	0.50**
External distraction	0.58**	-	0.69**	0.74**
Difficult patient	0.40**	0.69**	-	0.75**
Complex clinical situation	0.50**	0.74**	0.75**	-

Note: All correlations were calculated using Spearman's r ; * $p < 0.05$, ** $p < 0.01$.
NGO, non-governmental organisation.

which patients do not improve may interfere with compassion because the physician manages the uncertainty by orienting to diagnosis and symptom management. When patients do not improve, physicians may implicitly blame the patient for failing to accurately describe symptoms or adhere to recommendations. Ironically, it is in precisely such situations that compassion is most needed and most likely to prove of benefit to the patient and the working relationship. Ratings on the complex clinical situation barrier were higher among younger physicians, perhaps implying that physicians learn to manage the anxiety-provoking (and compassion inhibiting) environments that clinically complex situations engender.

Cost-driven changes to the manner in which healthcare is delivered result in doctors consulting increasing number of patients, having less time for each consult and completing more paperwork.²¹ Time pressure and the lack of sufficient time to take care of patients were central to the first barrier to compassion. This is consistent with time pressure effects on empathy.^{21 26} A busy clinician under management pressure to see sick patients every few minutes will find it difficult to connect, understand and care for the patient.

According to our data, cost-driven healthcare changes are likely to be compounded by work environments characterised by interruptions, external distractions and difficult patients. External distractions are known to impair a person's ability to listen⁵² and can result in feeling impatient, irritable, pressured and harassed.³⁷ Such demands almost certainly make it more difficult for physicians to be compassionate. Similarly, dealing with a difficult patient or family is taxing to clinicians and can evoke negative emotions,⁵³ despair, anger and frustration,⁵⁴ making it challenging to empathise²⁶ and be compassionate. Indeed, our results suggest that regardless of the physician experience or workload, difficult patients and families remain a

barrier to being compassionate. Medical training does not typically emphasise the 'handling' of difficult patients or unexpected clinical events. Indeed, there is a sense in which the opposite is true as trainee physicians are trained to expect that they will have mastery over clinical interactions, their medical knowledge, diagnostic and treatment skills.²⁸

Limitations

Although these data represent a useful contribution to our understanding of compassion in medical contexts, they are not without their weaknesses. First, participants were physicians from the Philippines, a developing country with numerous disparities. These disparities may have specific economic, religious or cultural constituents that impact on the healthcare delivery system(s), the rate and environments in which physicians work and expectations of patients and doctors regarding their duties. Therefore, care should be taken in seeking to generalise findings to other countries and healthcare contexts. However, it should also be remembered that all scales were developed and completed in English and that both the medical education and healthcare delivery systems in the Philippines are patterned on a North American model, with English as the medium of instruction. Similarly, the pilot development of our instrument among physicians from the USA, New Zealand, Australia and the Philippines should also help mitigate possible issues with generalisability.

Second, as a 'required' professional characteristic, self-reports on compassion are likely biased by self-presentational or other-presentational concerns. Our questionnaire design attempted to minimise this concern by asking doctors the extent to which common clinical situations act as barriers rather than asking them to rate their compassion per se. Future studies should assess desirability bias and implement more objective

assessments of physician compassion perhaps by employing third-party report (eg, patients and colleagues) or use of video simulation.

Third, the BPC questionnaire included barriers of a systemic nature including work environment, culture of defensive medicine and the perception of excessive non-clinical duties (eg, administration, training, supervision). However, the questionnaire did not specifically include difficulties in relationships with colleagues (eg, workplace bullying) and pressures from management. Given their importance to the well-being of physicians and other health professionals at work, adding items assessing these areas may be useful.

Fourth, using an abridged version of the compassionate love scale might have affected its validity.

Lastly, physician variables of self-compassion, resistance to receiving compassion,^{19 20} perfectionism, empathy, early experiences of empathy and compassion were not measured in this study. Future studies might benefit from examining how barriers to compassion are related to compassion-related fears, physician empathy and the like.

CONCLUSION

The current report is unique in attempting to deconstruct the concept of barriers to compassion in medicine. Professional guidelines require compassion of physicians, patients expect compassion^{4–8} and studies suggest that patients⁶ and physicians benefit from compassion.^{14–16 35} Accordingly, our study demonstrates that compassion is deterred by several distinct components. Identifying these specific barriers to compassion informs targeted interventions in the future. Rather than simply exhort physicians to remain compassionate, it is important that we understand that compassion occurs (and does not occur) in particular physical, clinical, institutional and interpersonal contexts. Training physicians to manage stress may reduce external barriers to compassion. Learning how to manage difficult patients and clinical uncertainty also represents a likely intervention in increasing compassion. Lastly, the focus for intervention should not solely be on the physician as the health system environment exerts time pressure and non-clinical demands on doctors, which become barriers to compassion.

Main messages

- ▶ Compassion is an expectation in doctor–patient relationships and a requirement by medical professional bodies.
- ▶ Although compassion fatigue occurs, the absence of compassion in physicians is unlikely to reflect *only* physician-related processes.
- ▶ New measure identified four distinct barriers to compassion: (1) physician burnout and overload, (2) external distractions, (3) difficult patient/family and (4) complex clinical situation.

Current research questions

- ▶ What are the specific barriers to compassion for different specialties in medicine?
- ▶ Can barriers to compassion be reduced among doctors?
- ▶ How can we restructure clinical environments to promote compassion in healthcare?

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Contributors ATF and NSC: study concept, study design, analysis, interpretation and drafting of article. ATF: data Collection and data entry. NSC: revising of article, final version and overall supervision.

Competing interests None.

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Provenance and peer review Not commissioned; externally peer reviewed.

Statistics Package used : SPSS IBM version 20.

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