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Original Article

From Awareness to Action: Bridging the Biopsychosocial Gap in Family Practice

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Abstract

Objective: To assessed how often family physicians reported applying the biopsychosocial model and explored related training and workplace factors.

Methodology: We conducted an international cross-sectional online survey of 80 family physicians working in different countries. We shared the English-language questionnaire, built in Google Forms, through WhatsApp and social media direct messages. Respondents reported use as 'often' or 'always'. We analyzed the data using descriptive statistics, Wilson confidence intervals, and exploratory logistic regression. Patient outcomes and directly observed consultations were not assessed.

Results: Although 91.3% of respondents were aware of the model, only 41.3% (95% confidence interval [CI]: 31.1–52.2%) reported applying it regularly. Respondents reported physical assessment often (88.8%), whereas inquiry about social context (42.5%) and psychosocial referral or follow-up (28.8%) were far less frequent. The most common barriers were limited consultation time (81.3%), heavy workload (73.8%), and limited community services (63.8%). Formal training showed a positive but imprecise adjusted association with regular use (odds ratio [OR]: 2.66; 95% CI: 0.98–7.22), and access to a multidisciplinary team showed no clear association.

Conclusion: Family physicians widely recognize and value the biopsychosocial model, a strong foundation for whole-person care. The gap between awareness and routine use points to clear, modifiable targets: consultation time, practical training, and community referral pathways. These findings offer practical priorities for training and service planning that larger studies can build on.

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Introduction

Family physicians see illness in the context of patients' lives. A physical complaint often comes with worry, strained relationships, job pressures, or difficulty paying for treatment. Recent accounts of the biopsychosocial model describe health and illness as products of interactions among biological processes, psychological experience, and the social environment.[1] Patient-centered interviewing offers a practical way to understand how these influences work for an individual patient, rather than treating them as unrelated checklist items.[2]This perspective fits the breadth of family medicine, where clinical reasoning extends beyond the diagnosis to the person, family, and community.[3] However, describing a practice as holistic does not show how consistently its consultations address psychosocial concerns. The development of a biopsychosocial practice scale demonstrated that family physicians' work can be examined in terms of holistic assessment, psychological care and partnership with patients.[4] Measuring practice in this way is more informative than simply asking whether physicians recognize the model's name. The gap between recognizing a need and acting on it matters clinically. In one survey, general practitioners felt that many of their patients would benefit from psychological support, yet regular referral and integrated collaboration were much less common.[5] The multinational PACE GP/FP study protocol also treats person-centered practice as an implementation question shaped by physicians' attitudes and working conditions. However, outcome data are still unavailable.[6] Taken together, these studies suggest looking at both what physicians say they do and what their practice settings allow them to do. Social assessment raises similar difficulties. National physician surveys have shown wide variation in how social determinants of health are documented and used for referral.[7] A survey of family medicine residency directors found that, although most endorsed social-needs screening, few used standardized tools routinely, and many cited limited clinical and community resources.[8] Participatory research in general practice has also highlighted consultation time, personalized goals, training, and workable information systems as key considerations when introducing person-centered care for multimorbidity.[9]These conversations also require sensitivity. Research on PRAPARE screening explored clinicians' experiences of asking about social circumstances and the obstacles to building such questions into routine practice.[10] Patients and care teams have identified rapport, clear questions, privacy and referral follow-up as important for successful screening.[11] In a deprived community, patients with multimorbidity emphasized being understood as people, sharing decisions and maintaining continuing relationships with their clinicians.[12] Everyday communication therefore matters as much as organizational capacity in biopsychosocial care. An international perspective is useful because access barriers and social circumstances differ between settings; even in a publicly funded system, a recent review linked unmet primary-care need with social disadvantage and illness.[13] Critics have also warned against using the biopsychosocial label without precise concepts or well-supported clinical claims.[14] Against this background, the present survey examined family physicians' self-reported application of the biopsychosocial model between March and August 2026. The objectives were to describe reported practices, identify perceived barriers and enabling resources, and explore associations with physician and workplace characteristics. The survey relied on respondents' accounts and did not directly measure consultation quality, patient outcomes, or treatment effectiveness.

Materials and Methods

This international cross-sectional survey targeted family physicians working in primary care in different countries. We collected data from Jan 2026 to June 2026 through an English-language questionnaire in Google Forms. We sent the link via WhatsApp and social media direct messages, using non-probability convenience sampling within professional networks. Country was recorded as the place of clinical practice, not nationality. We analyzed each physician as the unit of analysis and did not review patient records. Eligible participants were qualified medical practitioners who described their current role as family physician or general practitioner and who provided direct primary care. We

excluded trainees without clinical responsibilities and physicians working exclusively in other specialties. The analysis included 80 complete responses, a sample size determined by feasibility. Because we did not know how many eligible physicians we reached through messaging platforms, we could not calculate a response rate. For a 50% proportion, a simple random sample of 80 would yield an approximate 95% margin of error of 11.0 percentage points. This figure indicates nominal precision only and does not account for selection bias or clustering within practices or professional networks. The 35-item questionnaire covered physician characteristics, workplace circumstances, familiarity, education, confidence, overall use, consultation activities, perceived barriers, and available resources. The researchers designed it and did not validate it as a psychometric scale. Its domains and operational definitions are summarised in Table 1. No composite biopsychosocial score was calculated, because awareness, confidence, behavior, and organizational resources represent different constructs. Item wording and coding are documented in the accompanying data dictionary. The primary outcome was regular application of the biopsychosocial model, defined as a single overall frequency item coded as 'often' or 'always'; the remaining categories were 'never', 'rarely', and 'sometimes'. This grouping describes reported frequency and is not a validated competency threshold. We rated consultation activities on the same five-point scale over the preceding four weeks. For presentation, 'never' and 'rarely' were combined, as were 'often' and 'always'; original categories were retained in the data file. We defined formal training as postgraduate teaching or continuing education on the practical application of the approach; we recorded undergraduate exposure separately. We rated confidence from 'not at all confident' to 'very confident' and perceived importance from 'strongly disagree' to 'strongly agree'. The top two categories of each were combined for descriptive reporting. Resource items covered multidisciplinary access, mental-health referral, social or community referral, structured documentation, and case discussion. Because respondents could select more than one barrier, barrier percentages do not sum to 100%. Each record received a unique study code, and the analytical file contained no direct personal identifiers, patient details, or practice names. Country and month were retained as contextual variables. The included records had no missing values, so no imputation was needed. Analyses were performed in Python using NumPy 2.3.5 and SciPy 1.17.0. Categorical variables are reported as frequencies and percentages. We described age as mean and standard deviation, and experience, consultation duration, and workload as median and interquartile range. We calculated a 95% Wilson confidence interval for the proportion reporting regular use. We used logistic regression to estimate crude and adjusted odds ratios with Wald confidence intervals. To limit parameters for 33 outcome events, the adjusted model included only formal training and multidisciplinary access, entered together as binary covariates. We reported consultation duration, experience, and workload descriptively. We checked model convergence and sparse cells. We considered two-sided p-values below 0.05 statistically significant. All analyses were exploratory, with no multiple-comparison correction, no country-level adjustment, and no causal interpretation.

Results

We analyzed 80 complete responses from physicians practicing in different countries (Table 2). Respondents worked in public, private, and mixed practice, and most were based in urban settings. All percentages use 80 as the denominator.

Table 1. Questionnaire domains and operational definitions

Domain	Items	Measurement
Physician and workplace characteristics	9	Age, gender, experience, qualification, country, sector, setting, duration, workload
Familiarity, education, and attitudes	5	Awareness, undergraduate teaching, formal training, importance, confidence
Overall application	1	Five frequency categories; often/always defined regular use

Consultation activities	8	Individual frequency ratings over the preceding four weeks
Implementation barriers	7	Multiple selections; each coded present or absent
Available resources	5	Team, referral pathways, documentation, case discussion

The table summarizes questionnaire domains, item counts, and operational definitions, including participant characteristics, clinical practices, implementation barriers, and available resources.

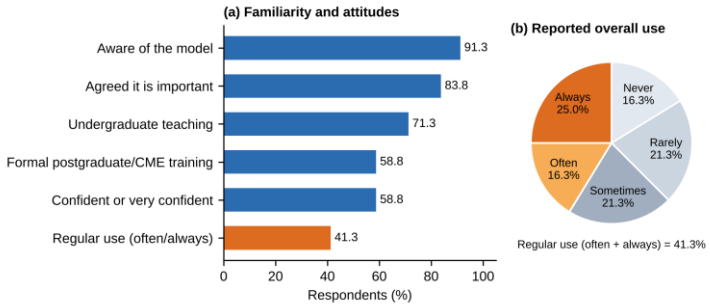
Table 2. Physician and practice characteristics

Characteristic	n (%) or summary
Age, years	44.4 ± 9.3
Gender: women	35 (43.8)
Gender: men	45 (56.3)
Clinical experience, years	14 (8–20)
Postgraduate family medicine qualification	60 (75.0)
General medical qualification	20 (25.0)
Public practice	45 (56.3)
Private practice	26 (32.5)
Both sectors	9 (11.3)
Urban setting	55 (68.8)
Rural setting	17 (21.3)
Mixed setting	8 (10.0)
Consultation duration, minutes	12 (10–15)
Daily workload, patients	34 (26–42)

Values are n (%) unless stated otherwise. Age is mean ± standard deviation; experience, consultation duration, and daily workload are median (interquartile range). Percentages may not total 100% because of rounding.

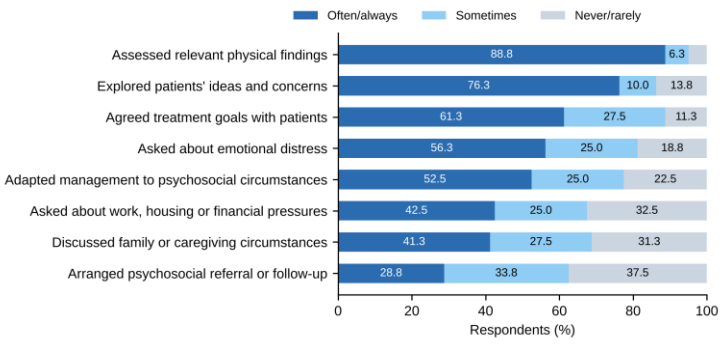
Familiarity and endorsement were much higher than regular application (Figure 1). Most respondents were aware of the model (91.3%) and agreed that it was important (83.8%), but fewer had received formal training (58.8%) or felt confident using it (58.8%). Reported overall use was spread across all five categories: never 16.3%, rarely 21.3%, sometimes 21.3%, often 16.3% and always 25.0%. Regular use was reported by 33 respondents (41.3%; Wilson 95% CI: 31.1–52.2%). This interval reflects uncertainty within the achieved sample and is not a global prevalence estimate.

Figure 1. Familiarity with the biopsychosocial model and reported overall application (n = 80): (a) familiarity and attitudes; (b) distribution of reported overall use



Patients reported physical assessment and exploration of concerns far more often than social inquiry or psychosocial referral (Figure 2). Only 28.8% reported arranging psychosocial referral or follow-up often or always. These ratings describe separate activities and do not show whether all components occurred in the same consultation.

Figure 2. Reported frequency of consultation activities over the preceding four weeks (n = 80)



Insufficient consultation time and heavy workload were the most frequently reported barriers, followed by limited social or

community services (Figure 3). Two-thirds of respondents reported access to a mental-health referral pathway, but fewer than half had a multidisciplinary team, a structured documentation tool, or regular case discussion. Reported access to a pathway does not indicate its capacity or timeliness.

Figure 3. Perceived barriers and available resources (n = 80; multiple selections allowed)

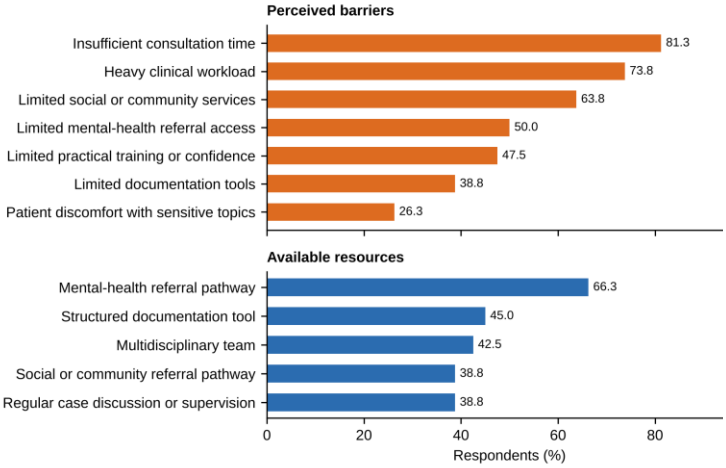


Table 3 shows adjusted associations. After adjustment, formal training showed a positive but imprecise association with regular use, while multidisciplinary access showed no clear association; both adjusted confidence intervals included 1. Country groups were too small for reliable national comparisons, and the estimates do not demonstrate causal effects.

Table 3. Associations with regular application

Variable	Comparison or increment	Crude OR (95% CI)	Adjusted OR (95% CI)	p value
Formal relevant training	Yes versus no	2.78 (1.07–7.24)	2.66 (0.98–7.22)	0.055
Multidisciplinary access	Yes versus no	0.65 (0.26–1.62)	0.86 (0.32–2.28)	0.763

CI, confidence interval; OR, odds ratio. Adjusted estimates come from one model including both variables.

The adjusted model included all 80 respondents (33 regular users and 47 less frequent users); the likelihood-ratio statistic was 4.72 with two degrees of freedom (p = 0.094). Regular use was reported by 24 of 47 trained physicians (51.1%) and 9 of 33 without formal training (27.3%). Among physicians with multidisciplinary access, 12 of 34 (35.3%) reported regular use, compared with 21 of 46 (45.7%) without access. These comparisons involve different respondent groups and do not isolate the effect of training or team arrangements.

Discussion

Most respondents recognized the biopsychosocial model, yet only 33 of 80 reported applying it regularly. Familiarity alone, therefore, does not appear to guarantee consistent practice. Ng and colleagues found that barriers to adopting a biopsychosocial approach in musculoskeletal care extended well beyond knowledge to clinical services, funding, and policy.[15] Their findings offer a useful implementation perspective, although condition-specific evidence cannot fully represent family physicians' work across the full range of presenting problems. Regular use was more common among physicians with formal training, but the adjusted estimate was imprecise, and its confidence interval included one. Multidisciplinary access likewise showed no clear adjusted association. These results do not identify independent determinants, and a non-significant result does not prove the absence of an effect. Grant and colleagues identified leadership, governance, information sharing, and remuneration as influences on implementing primary-care teams [16]. In contrast, Zezai and colleagues described fragmented services, workforce shortages, and poverty as obstacles to person-centered multimorbidity care in lower-resource settings.[17] These factors provide relevant context but are not explanations proven by this survey. The activity profile suggests that application was uneven across consultation tasks: physical assessment and exploration of patients' concerns were reported much more often than psychosocial referral. Frequency, however, says nothing about quality or benefit. A meta-analysis of integrated care found improvements in access and continuity but no consistent

improvement in wider patient outcomes.[18] A Delphi study ranked holistic and coordinated care as priorities for multimorbidity, reinforcing the need to link consultations with practical support.[19] This survey could not determine whether referral was needed, accessible, completed, or effective for individual patients. Patient experience adds another important perspective. Wilson and Hutchison found that a person-centered service philosophy did not always deliver the continuity and partnership that patients wanted.[20] Reviews of social prescribing have likewise noted methodological weaknesses and uncertainty about lasting benefit. [21,22] Referral frequency should therefore be interpreted alongside need, patient preference and service capacity. Future studies could ask patients whether their concerns were understood and whether agreed plans were realistic in their daily lives. Time pressure and workload were the leading perceived barriers. These findings reflect respondents' views; the limited adjusted model did not test consultation duration and workload as predictors. Porter and colleagues estimated that recommended primary-care tasks would take longer than the available working day, even with team support.[23] Qualitative work with primary care teams likewise describes a tension between expectations to address social determinants and a lack of structural resources.[24] This evidence supports a closer look at working conditions, without assuming that longer appointments alone would improve implementation. A key strength of this study is its international reach: it brings together family physicians from different countries and practice settings and looks beyond awareness to the everyday activities and barriers that shape their consultations. Every response was complete, and reporting followed CROSS guidance for survey research.[25] The main limitation is that the findings rest on a self-reported convenience sample, so larger studies with observed consultations should confirm them.

Conclusion

Family physicians in this international sample showed strong awareness of the biopsychosocial model and broad agreement on its importance, a clear foundation for whole-person care. Closing the gap with everyday practice appears achievable by addressing consultation time, workload, practical training, and community referral pathways. Formal training showed an encouraging, though not yet conclusive, link with regular use. Larger studies can now test whether these measures improve patient care.

Ethical Approval

Ethical approval for this study was obtained from the Hospital Research and Ethics Committee (IREB under **Document No. 2632, dated 07 August 2025,** prior to the commencement of the study.

Informed Consent

We obtained written informed consent from all participants before enrolment. Participants and their parents or legal guardians were informed about the study objectives, procedures, and voluntary nature of participation. Participation was entirely voluntary.

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This study received no external funding and used available institutional resources.

Conflict of Interest

The authors declare no competing interests or conflicts of interest related to this study.

Authors' Contributions

Fauzia Akhtar: Contributed to conceptualization, study design, data collection, interpretation of findings, manuscript drafting, critical revision, and final approval of the manuscript. He also accepts accountability for all aspects of the work.

Tabinda Ashfaq: Contributed to study design, data collection, data curation, literature review, interpretation of data, manuscript revision, and final approval of the manuscript. He also accepts accountability for all aspects of the work.

Fauzia Akhtar: Contributed to conceptualization, study supervision, clinical assessment, interpretation of findings, and critical revision of the manuscript for important intellectual content. She also approved the final version and accepts accountability for all aspects of the work.

Both authors: Reviewed and approved the final version of the manuscript and agreed to be accountable for all aspects of the work in accordance with the ICMJE authorship criteria.

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