



REVISIONES

Instruments for primary health care evaluation: a narrative review

Instrumentos para la evaluación de la atención primaria de salud: una revisión narrativa

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ABSTRACT

Objective: To conduct a narrative review about articles that present instruments used for primary health care evaluation worldwide.

Materials and methods: The search was performed in PubMed, Embase, Cochrane, and Lilacs of articles published between 2008 and 2013. The descriptors used were: primary health care, health care evaluation mechanisms, questionnaires and validation study. The eligibility criteria for articles were three languages and validation studies. An analysis matrix was constructed by database with the characteristics of each item, then a final matrix was consolidated with the articles that met the inclusion criteria and the found instruments were analyzed. The data analysis was carried out by the two authors independently for greater objectivity.

Results: 128 articles that met the inclusion criteria for the study were obtained. The percentage of instruments identified by analysis categories were: Lifestyle and chronic diseases 20.3%, PHC - Management 5.4% PHC - Relationship between Health equipment and User 23.4 %, Mental health 28, 9% and other subject areas 21.9%.

Conclusions: There is a wide and varied availability of generic and specific instruments that have been validated in the global context for evaluating the primary health care strategy, from which it is possible to reconstruct the best evidence as a working tool.

RESUMEN

Objetivo: Realizar una revisión narrativa sobre artículos que presentan instrumentos utilizados para la evaluación de la atención primaria de salud a nivel mundial.

Materiales y métodos: La búsqueda se realizó en Pubmed, Embase, Cochrane y Lilacs de artículos publicados entre 2008 y 2013. Los descriptores utilizados fueron: primary health care, health care evaluation mechanisms, questionnaires and validation study. Como criterios de elegibilidad de los artículos se incluyeron tres idiomas y estudios de validación. Se construyó una matriz de análisis por base de datos con las características de cada artículo, luego se consolidó una matriz final con los artículos que cumplieron con los criterios de inclusión y se analizaron los instrumentos encontrados. El análisis de la información se llevó a cabo por las dos autoras de forma independiente, para una mayor objetividad.

Resultados: Se obtuvieron 128 artículos que cumplieron con los criterios de inclusión establecidos en el estudio. El porcentaje de instrumentos identificados por categorías de análisis fueron: Estilos de vida y enfermedades crónicas 20,3%, Estrategia de APS – Administración 5,4%, Estrategia de APS - Relación Equipo de salud Usuario 23,4%, Salud Mental 28,9% y otras áreas temáticas 21,9%.

Conclusiones: Existe una amplia y variada disponibilidad de instrumentos genéricos y específicos que han sido validados en el contexto mundial para evaluar la estrategia de atención primaria de salud, sobre los cuales es posible reconstruir la mejor evidencia como herramienta de trabajo.

INTRODUCTION

Reorienting health services after the renewal of primary health care (PHC) in the Americas, it has been suggested as the core of health systems⁽¹⁻²⁾. This has led to the inclusion of mechanisms to allow conceptual, organizational and service offerings appropriation in different countries of Latin America, as each must find their own way to create a sustainable strategy in order to firmly base their health system on PHC⁽¹⁾. In this regard, one of the main challenges arising from the implementation of health systems based on PHC, is the evaluation of the results of actions in terms of efficiency and changes in the health status of the population, in order to ensure the quality of services⁽³⁻⁴⁾. Thus, the assessment is established as an essential component of management and potential source of inputs for the improvement of processes in general and quality in particular.^(3,5)

The literature has reported that the theoretical models on which PHC is evaluated regularly emphasize structural and organizational aspects⁽⁶⁻⁸⁾ and scarcely the extent to which they perform their duties⁽⁹⁾ and in this sense, the volume of studies published in scientific journals grows enormously, however, the scientific quality of research articles is varied. The importance of taking into account the quality of the studies for decision-making, is that acting on the basis of invalid or wrong scientific evidence is probably worse than acting without evidence. In the best of cases, the practice is unconsciously distorted and at worst of them the decision may cause harm to patients or negatively affect the users of the health system⁽¹⁰⁻¹¹⁾. In the area of biomedical sciences and health studies research studies with social impact have been conducted but few focused on PHC and although there are studies focused on bibliometric analysis an update of scientific production level base don PHC⁽¹²⁾ is required.

Scientific evidence rebuilt in this review will allow decision-makers and researchers have a comprehensive view on the instruments that have been used in different contexts, thematic areas and priority lines for PHC and in this way to identify the information about tools for their easy location, consultation and selection. Thus, as

discussed above perform a narrative review articles presenting instruments used for the evaluation of PHC worldwide.

MATERIALS AND METHODS

The narrative review articles are spacious publications appropriate to describe and discuss the development or the "state of the art" in a particular case, from a theoretical or contextual point of view ⁽¹³⁾. To this end, for the literature search of instruments that assess PHC four electronic databases were used: Pubmed, Embase, Cochrane and Lilacs; articles published between 2008 and 2013 were included. In addition to the databases cross-references and literature in specialized journals was sought, where some of the previously selected articles were found. The Mesh, Decs and Emtree search terms were: Related with PHC (eg. Primary health care) related with assessment (eg, health evaluation mechanisms and questionnaires) and related with the type of study (eg, validation studies). An analysis matrix was built where the characteristics of each of the items were recorded and variables such as author, title, original language, journal, year of publication, objective, name and evaluated area were included; as a final result of this process four matrices (one for each database) were obtained. As eligibility criteria there were used: validation articles for tools assessing PHC in Spanish, Portuguese and English and that the researches presented a tool to evaluate PHC.

Information Processing: data extraction from the review of studies was carried out with the participation of two researchers who worked independently, reviewed the studies and extracted the data required to fill the matrices defined for analysis; the type of study and the instrument used to evaluate PHC. Subsequently, the results of both were compared and in case of discrepancies, these were resolved by consensus. Of the four databases a second matrix was developed consisting on articles that met the inclusion criteria. The cut point to start the review was Articles published up to June 2013.

Analysis Plan: from the information provided in the final consolidation matrix, full-text articles were obtained, the variables included in this study were analyzed and a categorization was made according to the evaluation objective proposed by the tools identified (actors, programs and thematic areas that were targeted).

Ethical aspects: this review follows the ethical parameters established by Resolution 8430 of 1993 and the Declaration of Helsinki and does not represent any risk on humans because it is not performed on individuals but on published articles.

RESULTS

Search of the different articles in databases PubMed, EMBASE, Cochrane and Lilacs was performed, for which different search strategies were used and are described in Table I.

Table I: History and search strategies

Database	Procedure and search terms
Pubmed	Limits: Humans 2008 to 2013 #1 Search "Primary Health Care"[Mesh] Filters: Publication date from 2008/01/01 to 2013/12/31; Humans #2 Search Health Care Evaluation Mechanisms Filters: Publication date from 2008/01/01 to 2013/12/31; Humans #3 Search "Questionnaires"[Mesh] Filters: Publication date from 2008/01/01 to 2013/12/31; Humans #4 Search "Validation Studies" [Publication Type] Filters: Publication date from 2008/01/01 to 2013/12/31; Humans #5 Search (((#1) AND #2) AND #3) AND #4
Embase	Limits: Humans 2008 to 2013 #1. 'primary health care'/exp #2. 'primary health care'/exp AND (2008:py OR 2009:py OR 2010:py OR 2011:py OR 2012:py OR 2013:py) #3. 'primary health care'/exp AND (2008:py OR 2009:py OR 2010:py OR 2011:py OR 2012:py OR 2013:py) AND 'human'/de #4. 'health care quality'/exp #5. 'health care quality'/exp AND 'human'/de AND (2008:py OR 2009:py OR 2010:py OR 2011:py OR 2012:py OR 2013:py OR 2014:py) #6. 'questionnaire'/exp #7. 'questionnaire'/exp AND 'human'/de AND (2008:py OR 2009:py OR 2010:py OR 2011:py OR 2012:py OR 2013:py OR 2014:py) #8. 'primary health care'/exp AND (2008:py OR 2009:py OR 2010:py OR 2011:py OR 2012:py OR 2013:py) AND 'health care quality'/exp AND 'questionnaire'/exp AND 'human'/de AND (2008:py OR 2009:py OR 2010:py OR 2011:py OR 2012:py OR 2013:py OR 2014:py) #9. 'validation study'/exp #10. 'validation study'/exp AND 'human'/de AND (2008:py OR 2009:py OR 2010:py OR 2011:py OR 2012:py OR 2013:py) #11. 'primary health care'/exp AND 'health care quality'/exp AND 'questionnaire'/exp AND (2008:py OR 2009:py OR 2010:py OR 2011:py OR 2012:py OR 2013:py OR 2014:py) AND 'validation study'/exp AND 'human'/de AND (2008:py OR 2009:py OR 2010:py OR 2011:py OR 2012:py OR 2013:py)
Cochrane Library	#1 primary health care #2 health Care Evaluation Mechanisms #3 questionnaires #4 validation studies #5 (#1 and #2 and #3 and #4)

Lilacs	Limits: Humans 2008 to 2013 #1 primary health care #2 health Care Evaluation Mechanisms #3 questionnaires #5 (#1 and #2 and #3)
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Source: prepared

In the specified search in each database the terms primary health care and health care evaluation and questionnaires were used, except in the Pubmed database, where instead of using the term health care evaluation it was used health care quality. As a result of this first search 4141 articles were obtained. Then the search was refined and validation studies were selected, so the results were restricted to 222 from which 128 met the inclusion criteria and were annexed to the matrix of the evaluators (Table II). Finally 78 articles were rejected for not meeting the inclusion criteria and 16 for being duplicated in different databases. Following the evaluation of the instruments found, a categorization was made considering the ones assessing directly PHC functions, the ones assessing the functions of PHC related to a subject area, and the ones evaluating specific thematic areas without being bound by any of the functions of PHC. After analysis the categories that emerged were: Lifestyle and chronic diseases (20.3%), PHC Strategy - Management (5.4%), PHC Strategy - health team and user relationship (23.4%), Mental health (28.9%) and other thematic areas (21.9%) In the latter category, instruments assessing thematic areas related to physical activity, the skeletal, muscle, digestive and nervous systems; occupational health, general health, sexual and reproductive health and health care of the elderly were included.

Table II: Final Results of papers search

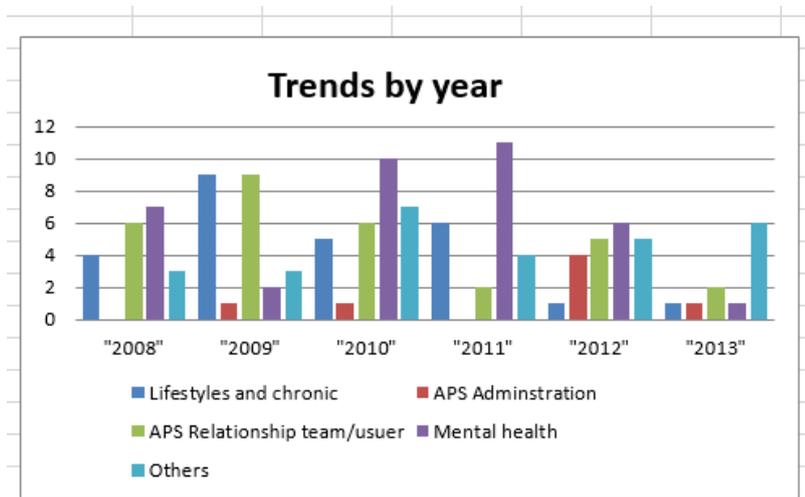
Database	Search Strategy	No. items found	No. items selected to correspond to validation studies	No. articles that met the inclusion criteria
Pubmed	primary health care and health care evaluation and questionnaires	2638	146	118
Embase	primary health care and health care quality and questionnaires	1456	29	10
Cochrane	primary health care and health care quality and questionnaires	39	39	0
Lilacs	primary health care and health care quality and questionnaires	8	8	0
Total		4141	222	128

Source: Prepared

In Tables III to VII, the instruments found in each of the categories that emerged are presented. When analyzing the assessment areas notice how in the category lifestyles

and chronic diseases the tendency is that to evaluate behavior (psychosocial and personal aspects) 14 of the 26 instruments were found (53%). Among the tools to evaluate the PHC strategy 37 were found of which 7 (19%) were found in the subject area of Administration and 30 (81%) to assess the health team-user relationship. Consistent with the development that has had PHC worldwide lots of tools to assess mental health have been designed (37) and in other subject areas 28 tools were found. Figure 1 shows the trend of the tools in each subject per year.

Figure 1: Trends per year of the areas evaluated by tools



Source: Prepared

Table III: Tools for assessing lifestyles and chronic diseases n = 26

Authors	Year	Tool	Assessment area - Purpose of the tool
De Torres LA, Rebollo EM, Ruiz-Moral R, et al ⁺	2009	AUDIT (Alcohol Use Disorders Identification Test)	Identify alcohol disorders (Conduct)
Seid M, Opiari-Arrigan L, et al ⁺	2009	BCQ	Assess asthma in children (Clinical)
Guck TP, Banfield MA, Tran SM, et al ⁺	2008	Multidimensional Diabetes Questionnaire and the Brief Symptom Inventory (BSI)	Psychosocial aspects in patients with diabetes (Conduct)
Dunderdale K, Thompson DR, et al ⁺	2008	CHAT	Quality of life of patients (Conduct)
Ställberg B, Nokela M, Ehrs PO, et al ⁺	2009	Clinical COPD Questionnaire	Assessing COPD (Clinical)
Lennon OC, Carey A, Creed A, et al ⁺	2011	COOP / WONCA charts for community-dwelling stroke survivors	Assess survivors of stroke (Clinical)
John IA, Lawoko S ⁺	2010	DVHPSS	Identify partner violence (behavior)

Frith P, Crockett A, Beilby J, et al ⁺	2011	FEV1 / FEV6 (Forced expiratory volume ratio at one and six seconds)	Detect COPD (Clinical)
Van Dijk-de Vries AN, Duimel-Peeters IG, Vrijhoef HJ ⁺	2011	HEPRODIA (Health Promotion Diabetes)	Diabetes (Conduct)
Karademir M, Koseoglu IH, Vatansever K, et al ⁺	2009	Hill-Bone compliance to high blood pressure therapy scale	Treatment of hypertension (Clinical)
Day LA, Brice P ⁺	2013	HPP / HPQ (The Hearing Parents Advice Perceptions of Health Professionals Questionnaire)	Parental perceptions against the advice of health professionals (Conduct)
Garcia-Esteve L, Torres A, Navarro P, et al ⁺	2011	ISA (Index of Spouse Abuse) PMWI-SF (Psychological Maltreatment of Women Inventory short form) WAST (Woman Abuse Screening Tool) PVS (Partner Violence Screen)	Identify domestic violence at health centers (Conduct)
Van de Steeg N, Sielk M, Pentzek M, et al ⁺	2009	MARS-5 (Morisky and Medication Adherence Report Scale)	Adherence of patients treated with antihypertensive drugs in APS (Conduct)
Naveiro-Rilo JC, Díez-Juárez DM, Romero Blanco A, et al ⁺	2010	MLHFQ	Heart failure (clinical)
Baena-Díez JM, Alzamora-Sas MT, Grau M, et al ⁺	2009	MONICA cardiovascular questionnaire	Determinants of cardiovascular disease compared with medical records (clinic)
Cramm JM, Nieboer AP ⁺	2012	PACIC (Patient Assessment of Chronic Illness Care) PACIC-S (PACIC short version)	Care for chronic disease (Conduct)
Ballal MS, Selvachandran SN, Maw A ⁺	2010	PCQ (Patient Consultation Questionnaire)	Colorectal cancer (Cynical)
Bowling A, Reeves B, Rowe G ⁺	2010	PPQA (Patient Preferences Questionnaire for angina treatment)	Angina treatment (clinic)
Coulibaly A, Turgeon O'Brien H, Galibois I ⁺	2009	QFFQ	Assess protein intake in the diet of patients with diabetes (Conduct)

Wei X, Barnsley J, Zakus D, et al ⁺	2008	Questionnaire based on agency theory	Diabetes (clinical)
Borschmann RD, Cottrell D ⁺	2009	RASP-B (Readiness to alter sun-protective Behaviour questionnaire)	Behavior change to sun exposure (Conduct)
Sigel E, Hart J, Hoffenberg A, Dodge M ⁺	2011	Screening tool	Detection of future violence youth (Conduct)
Ashton-Prolla P, Giacomazzi J, et al ⁺	2009	Simple questionnaire	Identifying hereditary breast cancer in PHC (clinic)
Paxton AE, Strycker LA, Toobert DJ, et al ⁺	2011	STC tool	Instrument for the assessment and diet counseling (Conduct)
Rebollo P, Cuervo J, Villa G, et al ⁺	2010	The SAT-Q Questionnaire	Assessment of patient satisfaction with chronic disease (Conduct)
Plazaola-Castaño J, Ruiz-Pérez I, Hernández-Torres E ⁺	2008	Woman Abuse Screening Tool	Assessing battered women among the ones attending PHC services (Conduct)

⁺ Database from which the study was obtained: Pubmed

Table IV: Tools for assessing the PHC strategy - Management n = 7

Authors	Year	Tool	Assessment area - Purpose of the tool
Pezzolesi C, Manser T, Schifano F, et al ⁺	2013	HPT (Handover Performance Tool)	Systematically assess the quality and safety of shift changes
Bobiak SN, Zyzanski SJ, Ruhe MC, et al ⁺	2009	Measuring practice capacity for change	Assess the capacity for change
Benachi Sandoval N, Castillo Martínez A, Vilaseca Llobet JM, et al ⁺	2012	PCAS (Primary Care Assessment Survey)	Assessing strengths and weaknesses of PHC
Kennie-Kaulbach N, Farrell B, et al ⁺	2012	Pharmacists' competencies	Evaluate the performance of pharmacists in PHC
Ose D, Freund T, Kunz CU, et al ⁺	2010	SOAPC (communication, decision making, stress / chaos, history of change)	Assess the organizational attributes
Wholey DR, Zhu X, Knoke D, et al ⁺	2012	TACT (The Teamwork in Assertive Community Treatment)	Evaluate the role of team processes in the performance of assertive community treatment

Haller DM, Meynard A, Pejic D, et al ⁺	2012	YFHS-WHO + Questionnaire	Assess access to PHC services by young people
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⁺ Database from which the study was obtained: Pubmed

Table V: Tools for assessing the PHC strategy - Relationship Health team and User n = 30

Authors	Year	Tool	Assessment area - Purpose of the tool
Hadjistavropoulos H, Biem H, et al ⁺	2008	Care Questionnaire	Evaluate the continuity of patient care
Letelier MJ, Aller MB, Henao D, et al ⁺	2010	CCAENA (Continuity of care between levels from the user's perspective)	Evaluate the perspective of users from continuity in the different levels of care
Gavilán Moral E, Ruiz Moral R, et al ⁺	2010	ICCAT scale	Assess patient-centered care
Ruiz Moral R, Peralta Munguia L, Pérula de Torres LA, et al ⁺	2010	ICCAT-Decision (General communication skills)	Include patients in decisions APS
Berendsen AJ, Groenier KH, De Jong GM, et al ⁺	2009	CQ-index (Consumer Quality Index)	Evaluate medical specialists and staff for patients
Bakshi AB, Wee SL, Tay C, et al ⁺	2012	CTM-15 and CTM-3	Evaluate the transition from patient care
Edvardsson D, Koch S, Nay R ⁺	2009	Inglés Language Person-Centered Climate Questionnaire-Patient version	Assess climate health center patient-centered
Haggerty JL, Roberge D, Freeman GK, et al ⁺	2012	Generic Measure of Continuity of Care	Evaluate the continuity of care from the patient's perspective
Mead N, Bower P, Roland M ⁺	2008	GPAQ (General Practice Assessment Questionnaire)	Assess the quality of the APS, and interpersonal care access
Gremigni P, Sommaruga M, Peltenburg M ⁺	2008	HCCQ (Health Care Communication Questionnaire)	Evaluate the outpatient communication with non-medical staff of the hospital
Suhonen R, Gustafsson ML, et al ⁺	2010	ICS-Nurse (Individualized Care Scale - Nurse)	Evaluate individualized nursing care
Harley C, Adams J, Booth L, et al ⁺	2009	MCQ (Medical Care Questionnaire)	Assess outpatient oncology patients
Graumlich JF, Grimmer-Somers K, Aldag JC ⁺⁺	2008	Physician-PREPARED modified scale	Evaluate the perception of the quality and the outcome of the discharge Planning and communication by doctors

Torijano-Casalengua ML, Olivera-Cañadas G, Astier-Peña MP, et al ⁺⁺	2013	MOSPSC (Medical Office Survey on Patient Safety Culture)	Evaluate the patient safety culture
Vuković M, Gvozdenović BS, Gajić T, et al ⁺	2012	Patient satisfaction questionnaire	Assess patient satisfaction compared to general medical services
Carmen S, Teal S, Guzzetta CE ⁺	2008	Patient-Family-Centered Care Survey	Evaluate patient care centered on the family
Pantoja T, Beltrán M, Moreno G ⁺	2009	Patients' perspective in Chilean primary care	PHC assess from the perspective of patients
Lee JH, Choi YJ, Sung NJ, et al ⁺	2009	PCAT (Primary Care Assessment Tool)	Evaluate the performance of the PHC
Yang H, Shi L, Lebrun LA, et al ⁺	2013	PCAT-C (Primary Care Assessment Tool Chinese version)	Quality of primary care from the perspective of users
Edvardsson D, Koch S, Nay R ⁺	2010	PCQ-S (Person-centered language Inglés Climate Questionnaire - staff version)	Assess climate health center as an aspect focused on health personnel
Lam CL, Yuen NY, Mercer SW, et al ⁺	2010	PEI	Evaluate the strategy for patients
Dempster M, Donnelly M ⁺	2008	Perceived Health Competence Scale	Perceived health in the environment PHC
Edvardsson D, Sandman PO, Rasmussen B ⁺	2009	Person-centered Climate Questionnaire - version staff	Evaluate the strategy for patients
Reinders ME, Blankenstein AH, Knol DL, et al ⁺	2009	PFC (Patient Consultation Feedback Questionnaire on Skills)	Assess patient satisfaction skills against doctor
Thom DH, Wong ST, Guzman D, et al ⁺	2011	Trust in the Patient Physician	Assess the trust doctor - patient
Shaw WS, Woiszwilllo MJ, Krupat E ⁺	2012	PPOS (Patient-Practitioner Orientation Scale)	Evaluate no biomedical aspects of back pain
Puschel K, Repetto P, Solar MO, et al ⁺	2012	SALUFAM	Assess most vulnerable families in health
Lurie SJ, Schultz SH, Lamanna G ⁺	2011	Teamwork-assessment	Assess the role of PHC team
Slater P, McCormack B, Bunting B ⁺	2009	The Nursing Context Index	Evaluate nursing care focused on the person
Rose D, Sweeney A, Leese M, et al ⁺	2009	User-generated measure of continuity of care	Evaluate the continuity of care

⁺ Database from which the study was obtained: Pubmed, ⁺⁺ Database from which the study was obtained: Embase

Table VI: Tools for assessing the Mental Health n = 37

Authors	Year	Tool	Assessment area - Purpose of the Tool
Arroll B, Fernando A, Falloon K, et al ⁺	2011	Auckland Sleep Questionnaire	Diagnose sleep disorders in primary care
Caraveo-Anduaga JJ, López-Jiménez JL, Soriano-Rodríguez A, et al ⁺	2011	CBTD	Monitoring of mental health in children and adolescents
Vega WA, Rodriguez MA, Ang A ⁺	2010	Checklist	Treatment of depression
Cape J, Morris E, Burd M, Buszewicz M ⁺⁺	2008	Complexity measure of psychosocial Explanations	Explanations of common mental health problems
Finnell DS, Lee J ⁺	2011	Decisional Balance for Patient Choice in Substance Abuse Treatment	Evaluate the pros and cons of choosing treatment for substance abuse
Gloster AT, Rhoades HM, Novy D, et al ⁺	2008	Depression Anxiety and Stress Scale-21 in older primary care patients	Assess depression, anxiety and stress in older adults
Pietsch K, Allgaier AK, Frühe B, et al ⁺	2011	DesTeen (Depression Screener for Teenagers)	Screening for depression in teens
García-Campayo J, Zamorano E, et al ⁺	2012	GAD (Generalised Anxiety Disorder)	Detect patients with probable anxiety disorder
Sidik SM, Arroll B, Goodyear-Smith F ⁺	2012	GAD-7	Detect anxiety in women
Castelo MS, Coelho-Filho JM, et al ⁺	2010	GDS (Geriatric Depression Scale)	Geriatric Depression
Pirani A, Brodaty H, Martini E, et al ⁺	2010	GPCOG-It	Screening for dementia in general practice
Healey AC, Rutledge CM, Bluestein D ⁺	2011	ITAS (Insomnia Treatment Acceptability Scale)	Assess adherence to treatment of insomnia
Gaynes BN, DeVeugh-Geiss J, et al ⁺	2010	M-3 checklist	Depressive, bipolar, posttraumatic stress disorder
Campbell-Sills L, Norman SB, Craske MG, et al ⁺	2009	OASIS (Overall Severity and Impairment Anxiety Scale)	Impairment related to anxiety
Bouloukaki I, Komninos ID, et al ⁺	2013	OSAS (Obstructive Sleep Apnoea Syndrome)	Identifying patients with sleep disorders
Mohr DC, Ho J, Duffecy J, Baron KG, et al ⁺⁺	2010	PBPT (Perceived Barriers to Treatment Psychological scales)	Assess perceived barriers to psychological treatment
French P, Owens J, Parker S, et al ⁺	2012	PCCL (Primary Care Early Detection Checklist)	Identify early psychotic states in young
Van Dam D, Ehring T, Vedel E, et al ⁺	2010	PC-PTSD (Posttraumatic Stress Disorder Primary Care screening)	Assess PTSD in patients with substance use disorder

		questionnaire)	
Queen AH, Ehrenreich-May J, et al ⁺	2012	PD (Panic Disorder)	Screening for panic disorder in adolescents
Patel V, Araya R, Chowdhary N, et al ⁺	2008	PHQ (Primary Health Questionnaire) GHQ (General Health Questionnaire) SRQ (Self-Reporting Questionnaire) K10 (Kessler Psychological Distress Scale) K6 (Kessler Psychological Distress Scale)	Compare common mental health disorders
Arroll B, Goodyear-Smith F, Crengle S, et al ⁺	2010	PHQ-9 PHQ-2 (Patient Health Questionnaire)	Major depression
Allgaier AK, Pietsch K, Frühe B, et al ⁺	2012	PHQ-9 (Patient Health Questionnaire) PHQ-2	A screening tool for depression in teens
Zuithoff NP, Vergouwe Y, King M, et al ⁺	2010	PHQ-9 (Patient Health Questionnaire) PHQ-2	Detect major depressive disorder in PHC
Cameron IM, Crawford JR, Lawton K, et al ⁺	2008	PHQ-9 (Patient Health Questionnaire) HADS-D (Hospital Anxiety and Depression Scale)	Evaluate depression
Yazici Güleç M, Güleç H, Simşek G, et al ⁺	2012	PHQ-SADS (Patient Health Questionnaire-Somatic, Anxiety, and Depressive Symptoms)	Evaluate somatic anxiety and depressive symptoms
Magnil M, Gunnarsson R, Bjørkelund C ⁺⁺	2011	PRIME-MD MADRS-S	Detect depressive symptoms in elderly
Boustani M, Perkins AJ, Monahan P, et al ⁺	2008	PRISM-PC questionnaire	Detect dementia
Chiu JF, Chokka PR ⁺⁺	2011	ProBiD-PC (Bipolar Disorder symptoms in Primary Care)	Prevalence of bipolar disorder in PHC
Bellón JÁ, de Dios Luna J, King M, et al ⁺	2011	PSRA (Spain predictD-risk algorithm)	Panic disorder in adolescents
Perry M, Drasković I, et al ⁺	2010	QIS (Quality indicators)	Diagnosis and management of dementia
Luciano JV, Bertsch J, Salvador-Carulla L, et al ⁺	2010	SDS (Sheehan Disability Scale)	Disability scale for major depression or panic disorder
Crawford EF, Lang AJ, Laffaye C ⁺	2008	TEQ	Traumatic experiences
Mavaddat N, Lester HE, Tait L ⁺	2009	The Patient Experience Questionnaire	Questionnaire mental health patients
Bellón JA, Moreno-	2008	The predictD-Spain study	Predict the onset of major

Küstner B, Torres-González F, et al ⁺			depression in PHC
Lombardo P, Vaucher P, Haftgoli N, et al ⁺	2011	Three-question screening test	Major depression with questions help patients with physical illness
Mohd-Sidik S, Arroll B, Goodyear-Smith F, et al ⁺	2011	TQWHQ (Two Questions With Help Question)	Questions to assess depression
Chin WY, Lam C, Wong C ⁺	2011	Attitudes to Psychological Interventions in Primary Care and Counseling (APIC-PC) survey	Knowledge and attitudes towards psychological interventions

⁺ Database from which the study was obtained: Pubmed, ⁺⁺ Database from which the study was obtained: Embase

Table VII: Tools for assessing other subject areas n = 28

Authors	Year	Tool	Assessment area - Purpose of the tool
Aabenhus R, Thorsen H, Siersma V, et al ⁺⁺	2013	ARTIQ	Respiratory tract infections
Kaarne T, Aalto M, Kuokkanen M, et al ⁺	2010	AUDIT-C-3 AUDIT, AUDIT-QF	Occupational health patients
Hallegraeff JM, van der Schans CP, Krijnen WP, et al ⁺	2013	Brief Illness Perception Questionnaire	Disease in patients with acute non-specific low back pain
Rebollo P, Castejón I, Cuervo J, et al ⁺	2010	CAT based on Item Response Theory (IRT)	Quality of life related to health
Puig Ribera A, Peña Chimenis O, Romaguera Bosch M, et al ⁺	2012	CBPAAT-EBPAAT	Identify physical inactivity
Block M, Ehrenworth JF, Cuce VM, et al ⁺	2013	CHEQ (Coordination of Handoff Effectiveness Questionnaire)	Climate scale of teamwork
Brito-Brito PR, Rodríguez-Álvarez C, Sierra-López A, et al ⁺	2012	HRQOL	Evaluate the quality of life of patients
Bernhardsson S, Larsson ME ⁺⁺	2013	EBP and guidelines in physical therapy	Measure attitudes, knowledge, behaviors, and requirements related to evidence-based practice and guidelines on physical therapy barriers
Ho KY, Gwee KA, Khor JL, et al ⁺	2008	GERD (Gastroesophageal	Identify people with gastroesophageal reflux

		Reflux)	
Segopolo MT, Selemogwe MM, et al ⁺	2009	GHQ-28 (General Health Questionnaire)	Assess the general health
De la Revilla L, de los Ríos Álvarez AM, Luna del Castillo Jde D, et al ⁺	2011	MG (Migratory grief)	Pain in relation to immigrants and sociodemographic variables
Cabrero-García J, Ramos-Pichardo JD, Muñoz-Mendoza CL, et al ⁺	2012	Mobility item bank	Assess mobility of elderly
Láinez MJ, Castillo J, et al ⁺	2010	MS-Q (Migraine Questionnaire Screen)	Migraine detection
Linton SJ, Nicholas M, MacDonald S ⁺	2011	OMPSQ (Örebro Musculoskeletal Pain Screening Questionnaire)	Musculoskeletal pain
Frilund M, Fagerström L ⁺	2009	OPC instrument	Aging Care
Georgy EE, Carr EC, Breen AC ⁺	2013	Expectations Questionnaire Patients and Doctors	Management of back pain
Perrot S, Poiraudau S, Kabir M, et al ⁺	2008	PCI (Pain Coping Inventory)	Coping with pain in patients with osteoarthritis of the hip and knee
Van Empel IW, Aarts JW, Cohlen BJ, et al ⁺	2010	PCQ-infertility (Patient-centredness questionnaire-infertility)	Care Fertility and Infertility
Thomas TL, Strickland OL, DiClemente R, et al ⁺	2013	PHPVS (Human Papillomavirus Vaccine Parental Survey)	HPV screening
Karekla M, Pilipenko N, Feldman J ⁺	2012	PHQ (Patient Health Questionnaire)	Patient Health
Van Ravesteijn H, Wittkamp K, Lucassen P, et al ⁺	2009	PHQ-15 (Patient Health Questionnaire)	Somatotypes
Halcomb EJ, Davidson PM, Caldwell B, et al ⁺	2010	PPE (Professional Practice Environment Scale)	Occupational health
Heneweer H, van Woudenberg NJ, van Genderen F, et al ⁺	2010	Questionnaire-Dutch Language Version	Acute back pain
Pace F, Scarlata P, Casini V, et al ⁺	2008	RDQ	Gastroesophageal reflux
Fernández Cabrera T, Medina Anzano S, Herrera Sánchez IM, et al ⁺	2011	self-efficacy scale	Efficacy of adults in regular physical activity
Bentur N, King Y ⁺	2010	SF-12	Quality of life in elderly

			residents in the community
Romero Ortuño R ⁺	2011	SHARE-FI (The Frailty Instrument for primary care of the Survey of Health, Ageing and Retirement in Europe)	Health, Ageing and Retirement
Cramm JM, Strating MM, de Vreede PL, et al ⁺	2012	SMAS	Assess discharge of elderly patients

⁺ Database from which the study was obtained: Pubmed, ⁺⁺ Database from which the study was obtained: Embase

DISCUSSION

In this review 128 articles that met the inclusion criteria were included; different types of validated instruments which are framed within the implementation of the PHC strategy were found. The categories obtained post-analysis were Lifestyle and chronic diseases, PHC Strategy - Management, Strategy PHC - Relationship health team and user, Mental Health and Other thematic areas. The results show a high heterogeneity in thematic areas that the tools assess related to PHC, and little focus on measuring the extent to which it meets its functions⁽¹⁴⁾. Additionally, they are focused on the evaluation of specific programs developed within the framework of the PHC strategy and pathologies attended, according to the results presented on a research conducted in countries with low per capita income, where most evaluations focused on specific programs such as maternal and child indicators and indicators bounded to structure and processes, but have lacked a clear conceptualization about the functions of PHC and a consistent measurement of them to assess their degree of achievement or attainment⁽¹⁵⁻¹⁶⁾.

Results of other studies have shown a trend in research of PHC focused on nonspecific problems and in second and third place on psychosocial and clinical aspects⁽¹²⁾. Within this variety of approaches of the strategy, 23.4% of the revised instruments refer to articles that evaluated it related to the health team and the user relationship, in this regard in Canada a research was conducted to identify the instruments evaluating the attributes of the PHC from the patient's perspective, against which it was concluded that it is necessary to adjust existing tools and / or develop new instruments⁽¹⁷⁾. In the category other thematic areas, instruments to assess physical activity, the skeletal, muscle, digestive and nervous systems; occupational health, general health, sexual and reproductive health and health care of the elderly were included, which some studies have shown such activities or services provided within the framework of the APS⁽¹⁸⁻¹⁹⁾.

The lower percentage category addressed in the instruments analyzed was the PHC Strategy - Management (5.4%), data that matches the issues raised by Cuba-Fuentes M, et al, who claim that the evaluation gives more importance to aspects such as time and service availability, accessibility, continuity of care, information they receive about their health problems or the doctor - patient relationship, while putting less emphasis on administrative aspects⁽²⁰⁾. In this regard it is important to note that in this category the tools found are more recent which would suggest that it is so far that this aspect is being studied as as relevant to the operation of the strategy increasing the number of publications in this field. With regard to the scientific production of articles that

demonstrate validated tools by years, the trend showed an increase between 2008 and 2011 of instruments in mental health, lifestyles and chronic diseases, consistent with the results of work carried out in Spain where they described an increase in PHC publications between 2008 and 2012 ⁽²¹⁾ .

The findings indicate the need to move forward in the process of cultural adaptation of existing tools to assess different areas of PHC as one of the difficulties of the international use of these tools is the magnitude of the changes they suffer when they are adapted to different contexts without regard to recommendations on this type of processes ⁽²²⁾ . In addition, from these results, it is evident that there are difficulties in the standardization of tools to assess PHC, this same difficulty has been reported in other assessments in the health sector ⁽²³⁻²⁴⁾ .

CONCLUSIONS

There is a wide and varied availability of generic and specific tools that have been validated in the global context to evaluate the PHC strategy, on which it is possible to reconstruct the best evidence as a working tool. Despite the importance given to the strategy and the emphasis on the need to evaluate it, the tools used for this purpose have been mixed, which highlights the diversity of interests and researchers in the area. This heterogeneity in the categories that the instruments assess, poses a methodological challenge focused on cross-cultural adaptation to be performed prior to application of the instruments in contexts other than its origin and understanding of the functions or dimensions that PHC should fulfill. The trend in the production of instruments each year reflects the interest in the global context of initiating the evaluation of the strategy and its management, since it is in 2012 where the start of publication of tools relevant to this analysis category. The increase in the number of published evidence shows the need to carry out regular systematic reviews of the literature, which also assesses the quality of the tools based on their metric properties.

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