Review Article

Indicators of good health practices for the homeless population: a scoping review

Indicadores de boas práticas em saúde para a população de rua: revisão de escopo

Indicadores de buenas prácticas en salud para los habitantes de la calle: revisión de alcance

Paula Hino[1] https://orcid.org/0000-0002-1408-196X
Lucimara Fabiana Fornari[2] https://orcid.org/0000-0002-8655- 6549
Emiko Yoshikawa Egry[2] https://orcid.org/0000-0003-0974-0315
Carmen Lúcia Albuquerque de Santana[1] https://orcid.org/0000-0002-6148-6230
Elda de Oliveira[1] https://orcid.org/0000-0002-9973-0948

How to cite:
Hino P, Fornari LF, Egry EY, Santana CL, Oliveira E. Indicators of good health practices for the homeless population: a scoping review. Acta Paul Enferm. 2022;35:eAPE00476.

DOI
http://dx.doi.org/10.37689/acta-ape/2022AR0047666

Keywords
Homeless persons; Primary health care; Health Status indicators; Social indicators

Descritores
Pessoas em situação de rua; Atenção primária à saúde; Indicadores básicos de saúde; Indicadores sociais

Descriptores
Personas sin Hogar; Atención primaria de salud; Indicadores de Salud; Indicadores sociales

Submitted
February 19, 2021

Accepted
December 7, 2021

Corresponding author
Paula Hino
E-mail: paulahino@yahoo.com.br

Associate Editor (Peer review process):
Ana Lúcia de Moraes Horta
(https://orcid.org/0000-0001-5643-3321)
Escola Paulista de Enfermagem, Universidade Federal de São Paulo, SP, Brazil

Abstract

Objective: To identify the indicators used to support good health practices for the homeless population.

Methods: This is a scoping review whose selection of articles took place in December 2019 and was updated in August 2020. The terms used for the search were: homeless persons, homeless, runway, foster care, street people, health status indicators, primary nursing care and primary health care. Studies published in English, Spanish and Portuguese were included, without limitation of publication time.

Results: A total of 29 articles were selected. From the reading in full, four empirical categories of indicators emerged: User relationship with service; Assessment of health conditions and disease; Assessment of social inclusion; and Assessment of changes in behavioral and psychological characteristics. The studies found used indicators mostly to perceive compliance with the purpose of the intervention project targeting the homeless population.

Conclusion: The way to verify these indicators was varied, as well as the intervention projects, there is no consensus about what type of indicators would be fertile for assessment of the actions carried out.

Resumo

Objetivo: Identificar os indicadores utilizados para embasar as Boas Práticas em Saúde à população de rua.

Métodos: Trata-se de uma revisão de escopo cuja seleção dos artigos ocorreu em dezembro de 2019 e foi atualizada em agosto de 2020. Os termos utilizados para a busca foram: *homeless persons*, *homeless*, *runway*, *foster care*, *street people*, *health status indicators*, *primary care nursing* e *primary health care*. Foram incluídos estudos publicados em língua inglesa, espanhola e portuguesa, sem delimitação de tempo de publicação.

Resultados: Foram selecionados 29 artigos. A partir da leitura na íntegra, houve a emergência de quatro categorias empíricas de indicadores: Relação do usuário com o serviço de atendimento; Avaliação das condições de saúde e doença; Avaliação da inclusão social e Avaliação das mudanças nas características comportamentais e psicológicas. Os estudos encontrados utilizaram-se de indicadores majoritariamente para perceber a adesão ao propósito do projeto de intervenção tendo por alvo a população de rua.

Conclusão: A forma para verificação destes indicadores foi variada, assim como os projetos de intervenção, não há um consenso acerca de que tipo de indicadores seria fértil para a avaliação das ações realizadas.

Resumen

Objetivo: Identificar los indicadores utilizados para basar las Buenas Prácticas en Salud de los habitantes de la calle.

Métodos: Se trata de una revisión de alcance, cuya selección de artículos se realizó en diciembre de 2019 y fue actualizada en agosto de 2020. Los términos utilizados para la búsqueda fueron: *homeless persons*,

[1]Escola Paulista de Enfermagem, Universidade Federal de São Paulo, São Paulo, São Paulo, Brazil.
[2]Escola de Enfermagem, Universidade de São Paulo, São Paulo, São Paulo, Brazil.
Conflicts of interest: nothing to declare.

homeless, *runway*, *foster care*, *street people*, *health status indicators*, *primary care nursing* y *primary health care*. Se incluyeron estudios publicados en idioma inglés, español y portugués, sin restricción del tiempo de publicación.

Resultados: Se seleccionaron 29 artículos. A partir de su lectura completa, surgieron cuatro categorías empíricas de indicadores: Relación del usuario con el servicio de atención, Evaluación de las condiciones de salud y enfermedad; Evaluación de la inclusión social y Evaluación de los cambios de características de comportamiento y psicológicas. Los estudios encontrados utilizaron mayormente indicadores para percibir la adherencia al propósito del proyecto de intervención que tiene como destinatarios a los habitantes de la calle.

Conclusión: La forma de verificación de estos indicadores fue variada, así como los proyectos de intervención. No existe consenso sobre qué tipo de indicadores sería provechoso para la evaluación de las acciones realizadas.

Introduction

The existence of a homeless population (HP) in the world's large cities is increasingly common.[1-3] In western societies, the structuring of the mode of production makes people and even entire families experience this situation, temporarily or permanently, for years on end, whose pattern of cause goes back to the inadequacy or failure to meet the minimum conditions for the possibility of conventional residences, such as houses or reception centers.

The social vulnerability experienced by HP has an impact on health, evidenced by the difficulties related to basic needs, climate change, psychosocial issues and work, requiring technical, managerial responses and political commitment from the authorities.[2]

Faced with the vulnerabilities to which HP is susceptible, the creation of different care strategies is essential, based on primary health care models that consider their health needs, in addition to public policies aimed at reducing social inequalities[3]. The complexity of actions and strategies aimed at this population requires public policies that guarantee the intersectoriality of actions and strategies that address the real needs of this specific group.[4]

The discussion of care practices focused on HP in Primary Health Care (PHC) points to the understanding of a person who experiences homelessness, the appreciation of network care and emancipatory care, which promotes the subject's participation in self-care as elements essential for the development of care.[5]

In the wake of social and economic crises, there is an accelerated increase in the HP contingent, demanding the diversification of the ways of providing health care, usually associated with social assistance. Such practices, carried out by institutions of different orientations and purposes, could be seen as those that carry out good health practices for HP.[2]

The literature records a number of these institutions, however little is known if their practices actually result in the "good" qualitative. In the present study, it is considered as good practice the best way to identify, implement, assess and disseminate information, as well as to monitor the results of interventions in health services.[6]

A review study that aimed to know and conceptualize good or best health practices found several concepts referring to the best clinical practices and in the network of knowledge of health services. It summarized the findings by referring that "best practice" was a term used in the context of providing medical services, with little mention of practices of other professionals who dealt with health care.[6]

Due to the diversity of concepts of good practices, the importance of establishing criteria that support the construction of indicators to parameterize interventions in health services is considered. Indicators consist of qualitative or quantitative parameters that aim to detail whether the objectives of a proposal are being well carried out (process assessment) or have been achieved (results assessment), in addition to being a device for measurement and assessment. Therefore, they are important management tools, as they allow operating on key dimensions of systems and processes, monitoring situations that must be changed, encouraged or enhanced from the beginning of an intervention to the achievement of what was intended and predicted as a result.[7]

The high prevalence of health and social problems related to HP reveals the complexity of interventions that aim to produce answers to health needs and homelessness. Literature review reveals that HP-adapted primary health care programs may

have better results when compared to conventional programs. In addition to this, the review highlights the diversity of interventions implemented with HP associated with mental health care, permanent housing, follow-up after hospital discharge, substance misuse and support for young people. It also emphasizes the participation of professionals in the effectiveness of interventions through interpersonal relationships, community resources, clinical care and health advocacy.[8]

In this context, it is highlighted that health professionals involved in HP care need to understand the health needs of this population, as well as creating, maintaining and assessing interventions aimed at improving the quality of life of HP users of health services. Therefore, the use of quality indicators of interventions is shown to be essential for monitoring and assessing the effectiveness of the care provided. Therefore, this study aimed to identify the indicators used to support good health practices to HP.

Methods

A scoping review was carried out, which is appropriate for mapping studies that deal with evidence produced in the literature on a certain thematic perspective with different methodological approaches.[9]

To this end, a review protocol was developed based on the methodological approach proposed by the Joanna Briggs Institute, in order to search for publications in the scientific literature associated with the indicators of good health practices directed to HP. This protocol guided the search for studies that met the proposed eligibility criteria for the review.

The review question adopted was: What indicators are used to describe good health practices to HP? This question was elaborated through the PCC strategy, which defined the elements: Population (homeless population); Concept (indicators of good practices); Context (health).

The research was carried out in December 2019 and updated in August 2020, in academic databases that had a multidisciplinary interface on the HP phenomenon. The databases consulted were: Latin American and Caribbean Literature in Health Sciences (LILACS), Medical Literature Analysis and Retrieval System Online via PubMed (MEDLINE/PubMed), PsycINFO, Cumulative Index to Nursing and Allied Health Literature (CINAHL) and Excerpta Medica Database (Embase). The Scientific Electronic Library Online (SciELO) virtual library was also accessed as an additional source.

For search, the following search terms were defined and used: homeless persons, homeless, runway, foster care, street people, health status indicators, primary care nursing and primary health care. The search strategy was adopted according to the specificity of each database.

Studies published in English, Spanish and Portuguese were included, without delimiting the publication period. Regarding the types of studies, primary, empirical, quantitative and qualitative research of any design or methodology were included. The inclusion criteria were based on the objective of this review: studies that pointed to indicators or means of assessing a practice of care for HP; studies dealing with HP health assessment resulting from some intervention; studies that described a practice and its assessment from the point of view of changing the health profile or pre-existing condition; and studies that pointed to the effect of a given practice on HP. On the other hand, studies that presented the perception of health professionals about a care practice for this specific population were excluded.

The selection of studies was performed by double checking, following the inclusion and exclusion criteria described in the protocol. Initially, data were extracted based on titles and abstracts. Then, the full articles were accessed for assessment according to the eligibility criteria and composition of the final sample of the review. Figure 1 presents a detailed flowchart of the stages of literature search strategies.

The selection of studies according to title and abstract was performed using the Rayyan QCRI digital tool.[10] The articles selected from each database were imported into Rayyan QCRI in the BibTex file format. Subsequently, two of the authors

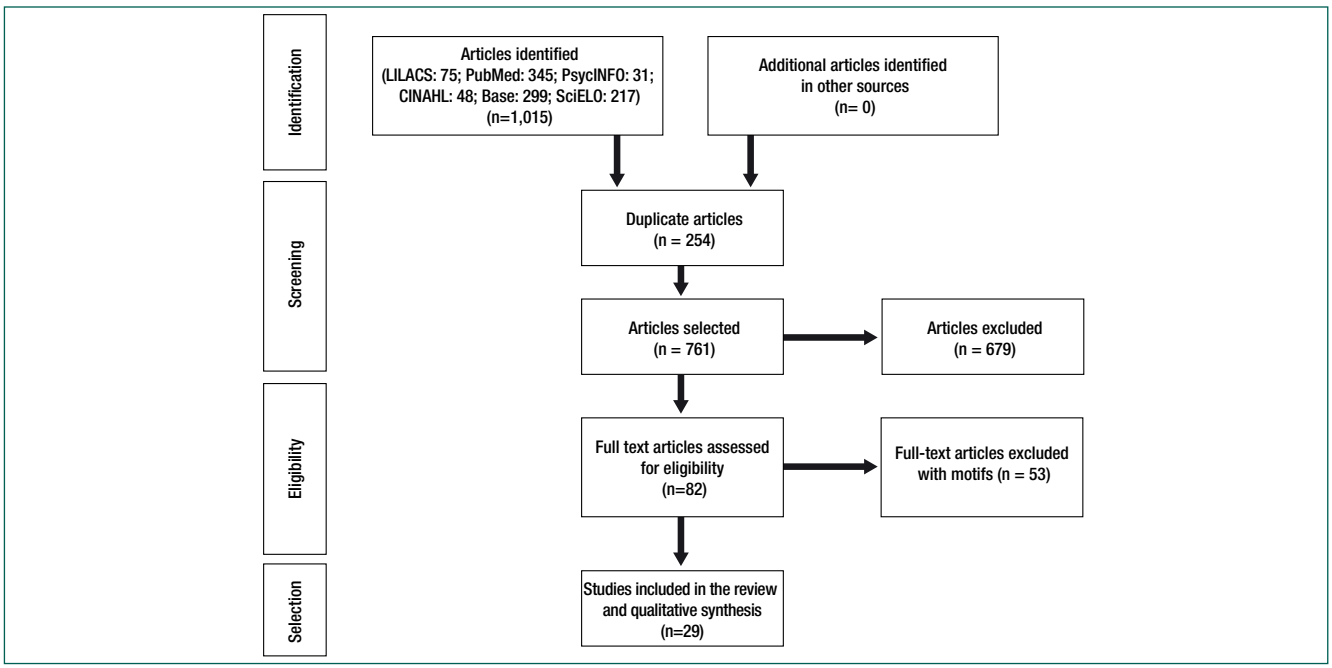

Figure 1. Preferred Reporting Items Extension for Scoping Reviews (PRSMA-ScR) flowchart on study selection

of this research independently and double-blindly read the titles and abstracts. Then, a third author reviewed the articles that showed divergence in the decision to include or exclude the study. In cases where doubts about the selection remained, the articles advanced to the next step corresponding to reading in full.

The extraction of data from the articles in full was performed using an instrument designed according to the review question, in which the following items were verified: year of publication, area of concentration, country of the institution that produced the article, study design, sample, action performed, quality indicator and means of assessment.

This instrument was incorporated into the webQDA qualitative analysis software.[11] The full articles were imported in Portable Document Format to webQDA through the Internal Sources system. Study characterization was carried out using descriptive codes. Descriptive coding was performed using the automatic coding tool, which allows importing files in XML format. Then, the data were coded using the Tree Codes system, in which empirical categories emerged through thematic content analysis [12] and, consequently, the syntheses of knowledge were elaborated.

Results

Of the 29 selected articles, the first was published in 1996 and discontinuously until 2020, in an arc of 24 years, and the year that most published articles on the subject of this study was 2011 with four articles, followed by 2004 and 2020, with three articles each.

Regarding the area of concentration of the articles selected in the review, psychiatry (n=5), health sciences (n=4), medicine (n=4), public health (n=3), psychology (n=2), mental health (n=2), the department of veterans affairs (n=2), nursing (n=2), social work (n=2) and other areas such as epidemiology and multidisciplinary (n=3) stood out.

Regarding the country linked to the institution responsible for conducting this research, the United States of America (n=20), Canada (n=3), the United Kingdom (n=3), the Netherlands (n=2) and Spain (n=1), all of which are published in English. Regarding the study design, 22 publications used a quantitative approach, five with a qualitative approach and two used mixed methods.

In relation to the studied sample, 13 articles involved participants with mental illness, nine articles related to HP with chronic diseases and two articles

related to the care of war veterans on the streets. There was the identification of an article associated with young people, another with women and another with users with tuberculosis. Two articles exclusively analyzed programs and interventions carried out with HP.

With regard to the means of assessing the actions presented in the selected studies, the use of interviews with users (n=17), longitudinal follow-up (n=6), records in medical records and care files (n=4) and focus group (n=11) stood out. It should be noted that some studies used more than one strategy for the assessment process.

Chart 1 presents the distribution and characteristics of publications found about good health practices for HP.

From the analysis of selected articles, four empirical categories were highlighted: a) User relationship with service; b) Assessment of health conditions and disease; c) Assessment of social inclusion; d) Assessment of changes in behavioral and psychological characteristics (Chart 2).

Chart 1. Presentation of articles according to author, year of publication, study objective, study design and indicators of Good Health Practices for HP

First author, year of publication	Objective	Study design/Indicators
1. Díez EI. (1996)[13]	Assess a social assistance and health monitoring program aimed at homeless people.	*Relationship with services: number and frequency of hospitalization; Health-disease conditions.
2. Orwin RG. (1999)[14]	Study an intervention program for homeless people with alcohol and other drug problems.	•Relationship with services: reasons for staying and leaving the program; Social inclusion: homeless time and satisfaction with housing; Health-disease conditions: frequency of substance use.
3. Lam JÁ. (2000)[15]	Study the relationship between improvement of quality of life among homeless people with severe mental illness.	*Psychological characteristics: improvement of quality of life; Social inclusion: homeless time, satisfaction with housing, social support, employment and income; Health-disease condition: frequency of substance use.
4. Rosenheck RA. (2001)[16]	Assess post-discharge changes in health status and in the use of services associated with a community treatment model.	*User relationship with services: reasons for permanence and exit of the program; Model fidelity[a].
5. Cook J. (2011)[17]	Study the results of 4,778 homeless people with severe mental illness enrolled in the Community Care Access Program and Effective Services and Support.	*User relationship with services: legal assistance and justice system; Social inclusion: social support, employment and income; Health-disease conditions: frequency of substance use, improvement of physical, mental and sexual health.
6. Clark C. (2003)[18]	Compare the effectiveness of two types of service programs in improving homelessness among people with severe mental illness.	*Social inclusion: homeless time, satisfaction with housing; Health-disease conditions: frequency of substance use; improving physical, mental and sexual health; Model fidelity[b].
7. Yanos PT. (2004)[19]	Investigate the response to housing and experience of integration in the community of former homeless people with severe mental illness.	•Psychological characteristics: general satisfaction with life and health, subjective and functional results, life choices/changes, sense of security and protection; Social inclusion: improvement of interpersonal relationships, social and community participation; Health-disease conditions: improvement of physical, mental and infectious conditions.
8. Jarjoura D. (2004)[20]	Check the efficacy of screening and treatment for depression among outpatients living on the streets.	*Psychological characteristics: improvement of quality of life; Health-disease conditions: improvement of physical, mental and sexual health, assessment of mental disorders, improvement of physical, mental and infectious conditions.
9. Graham-Jones S. (2004)[21]	Assess the effectiveness of a health advocate with homeless people in a primary care environment.	*User relationship with services: access and use of health services, access to the therapeutic project; Psychological characteristics: quality of life; Social inclusion: homeless time, satisfaction with housing, support and social support; Health-disease conditions: frequency of substance use; improvement of physical, mental and sexual conditions.
10. Nelson G. (2005)[22]	Determine whether housing acquisition is associated with improvements in social support, community integration, significant activity and other aspects.	*Psychological characteristics: changes in life and feeling of hope.
11. Cheng AL. (2008)[23]	Assess the impact of gender on the results of a public policy intervention aimed at homeless people with mental illness.	*Psychological characteristics: victimization; Social inclusion: homeless time, satisfaction with housing, improvement of interpersonal relationships, social and community participation, support and social support; Health-disease conditions: frequency of substance use.
12. Savage CL. (2008)[24]	Compare specific health outcomes in a group of homeless people who received intervention from a nurse.	*User relationship with services: access and use of health services; Psychological characteristics: improvement of quality of life; Health-disease conditions: frequency of substance use.
13. McGuire J. (2009)[25]	Examine the hypothesis that a clinical demonstration integrating primary care and mental health services can improve homeless people's health.	*User relationship with services: improvement of access to care.
14. Herman D. (2011)[26]	Assess the effectiveness of the Critical Time Intervention model.	*User relationship with services: complying with the therapeutic project; Social inclusion: homeless time and satisfaction with housing.
15. Van Vugt MD. (2011)[27]	Investigate the association between model fidelity and outcome in the Dutch health system.	*User relationship with services: access and use of health services, frequency of hospitalization, doctor-patient relationship; Psychological characteristics: specific psychological care needs of homeless people, help-seeking behavior, mental and social functioning; Social inclusion: housing stability, housing status, time without satisfaction with housing, improvement of interpersonal relationships, social and community participation, employment and income; Model fidelity[a].
16. Tsai J. (2011)[28]	Assess the satisfaction of housing of homeless people who received accommodation.	*Psychological characteristics: general satisfaction with life and health, subjective and functional results; Social inclusion: housing status, homeless time and satisfaction with housing.

Continue...

Continuation.

First author, year of publication	Objective	Study design/Indicators
17. Padgett DK. (2011)[29]	Investigate substance abuse use treatment services among homeless people with mental illnesses enrolled in the Housing First and Treatment First programs.	•User relationship with service: experiences in services; Psychological characteristics: physical and psychological needs, specific needs of homeless people; help-seeking behavior and mental and social functioning, clinical, existential, functional, physical and social recovery; Social inclusion: improvement of interpersonal relationships, social and community participation; Health-disease conditions: frequency of substance use; improved physical, mental and sexual health.
18. Patterson M. (2012)[30]	Study the findings of the Homelessness Intervention Project.	*User relationship with services: access and use of health services, frequency of hospitalization, legal assistance, justice system; Social inclusion: support, social support, employment and income; Health-disease conditions: frequency of substance use.
19. Tomita A. (2012)[31]	Study the impact of Critical Time Intervention on reducing rehospitalization among former homeless people with severe mental illness.	*User relationship with services: frequency of hospitalization; Social inclusion: housing stability, housing status and homeless time.
20. Krabbenborg MAM. (2013)[32]	Examine the effectiveness of Houvast in Dutch services for young homeless people.	*User relationship with services: access and use of health services, increased confidence in professionals; Psychological characteristics: improved quality of life, care and psychological needs, specific needs of homeless people, coping, resilience and intellectual disability; Health-disease conditions: frequency of substance use; improved physical, mental and sexual health.
21. Kertesz SG. (2013)[33]	Compare the experiences of care of homeless people in health organizations.	*User relationship with services: doctor-patient relationship, quality of primary care, improvement of access to care; Psychological characteristics: physical and psychological needs, specific needs of homeless people, general satisfaction with life and health, subjective and functional outcomes, and behavioral model; Social inclusion: time without a roof and satisfaction with housing; Health-disease conditions: frequency of substance use, improvement of physical, mental and sexual health.
22. Patterson ML. (2014)[34]	Investigate community integration among homeless adults with mental illness.	*Social inclusion: improvement of interpersonal relationships, social and community participation; Health-disease conditions: frequency of substance use, assessment of mental disorders, medical conditions and infectious diseases.
23. Padgett DK. (2016)[35]	Investigate the recovery trajectory of 38 homeless people enrolled in housing support programs.	•Psychological characteristics: clinical, existential, functional, physical and social recovery.
24. Kriegel LS. (2016)[36]	Compare housing first model fidelity and residential customer outcomes between forensic and non-forensic programs.	•Model fidelity[a].
25. Wittenberg E. (2016)[37]	Demonstrate the application of the Best-Worst Scale in a primary care environment.	*Best-worst scaling (provider, configuration, procedure, fears and concerns).
26. Tsai J. (2019)[38]	Investigate changes in the physical health of homeless people who participate in a housing program and the associations between changes in physical health, housing status and trust in care providers.	*User relationship with service: increased trust in professionals; Psychological characteristics: improved quality of life, satisfaction with life and health, subjective and functional outcomes; Social inclusion: time without a roof; Health-disease conditions: frequency of substance use, assessment of mental disorders, medical conditions and infectious diseases, and effectiveness of medical conditions.
27. Varley AI. (2020)[39]	Investigate the main domains of primary care from a homeless person-centered model.	•User relationship with service: access and use of health services, treatment to the therapeutic project, increased trust in professionals and doctor-patient relationship; Psychological characteristics: care and psychological needs, specific needs of homeless people; Social inclusion: improvement of interpersonal relationships, social and community participation; Health-disease conditions: frequency of substance use.
28. Chhabra M. (2020)[40]	Investigate how housing stability affected the management of chronic diseases and social and community relations.	•User relationship with service: access and use of health services; Psychological characteristics: feeling of security and protection, management of acute and chronic conditions; Social Inclusion: time without a roof, satisfaction with housing, improvement of interpersonal relationships, social and community participation; Health-disease conditions: frequency of substance use.
29. Zeitler M. (2020)[41]	Investigate the impact of the prevalence of chronic conditions and use of health care in a clinic for homeless people.	*User relationship with service: access and use of health services, access to the therapeutic project, quality of primary care; Social inclusion: support and social support; Health-disease conditions: frequency of substance use, improvement of physical, mental and sexual health, and effectiveness of medical conditions.

Symbols for study types: Quantitative (*); Qualitative (♣), Mixed (•); [a] Model fidelity: How to assess services that adopt standardized models of care through detailed verification of the purpose and development of HP care

Discussion

It is noteworthy that the definition of HP is varied between different countries, which makes research on health indicators for this population a methodological challenge. Issues such as climate patterns, cultural traditions, gender issues, social infrastructure, economic problems, public social service support, and even different languages contribute to the absence of a single concept. [42] Moreover, the multiplicity of conceptions of homelessness contributes to HP being a heterogeneous social group. [43]

The empirical categories identified from the organization of good health practice indicators to HP reflect the complexity involved in the proposition and availability of health services and social policies of care to this population. The indicators are diverse and cover individual, social and structural aspects, i.e., they reflect the multidimensionality of the phenomenon of vulnerability.

In the category "User relationship with care service", there was emphasis on access and use of health services at different levels of care, followed by monitoring of hospital and psychiatric hospitalizations. From this perspective, it is considered that

Chart 2. Articles selected according to the empirical categories and corresponding indicators

Empirical categories	Indicators	Articles mentioning indicators
a) User relationship with service	Access to and use of health services	(21) (27) (24) (30) (32) (39) (40) (41)
	Number and frequency of hospital or psychiatric hospitalization	(13) (27) (30) (31)
	Compliance with the therapeutic-care project	(21) (26) (39) (41)
	Increase of confidence in professionals	(32) (36) (38) (39)
	Working alliance and doctor-patient relationship	(27) (33) (39)
	Legal assistance and justice system	(17) (30)
	Reasons for staying and leaving the program	(14) (16)
	Primary care quality	(33)(41)
	Improvement of access to care	(25) (33)
	Service experiences	(29)
b) Assessment of health conditions and disease	Frequency and intensity of consumption of alcohol, tobacco and other psychoactive substances	(15) (14) (17) (18) (21) (23) (24) (29) (32) (33) (34) (38) (39) (40) (41)
	Improvement of physical, mental and sexual health	(17) (18) (20) (21) (29) (32) (33) (41)
	Improvement of quality of life	(15) (20) (21) (24) (32) (38)
	Assessment of mental disorders, medical conditions and infectious diseases	(19)(20)(34)(38)
	Effectiveness of medical conditions	(38) (41)
	Evolution of tuberculosis rates	(13)
c) Assessment of social inclusion	Housing stability, housing status, homeless weather and housing satisfaction	(14) (15) (18) (21) (23) (26) (27) (28) (31) (33) (40)
	Social participation and improvement of interpersonal and community relationships	(19) (23) (27) (29) (34) (39) (40)
	Social support	(15) (17) (21) (23) (30) (41)
	Employment and income	(15) (17) (27)(30)
d) Assessment of changes in behavioral and psychological characteristics	Psychological and specific care needs of homeless people	(27) (29) (32) (33) (39)
	Overall satisfaction with life and health, subjective and functional results	(19) (28) (33)
	Choices and changes of life	(19) (22)
	Sense of security and protection	(19) (40)
	Help-seeking behavior and mental and social functioning	(27) (29)
	Coping	(32)
	Resilience	(32)
	Victimization	(23)
	Feeling of hope	(22)
	Intellectual disability	(32)
	Behavioral model	(33)
	Clinical, existential, functional, physical and social recovery	(35)
	Management of acute and chronic conditions	(40)

the lack of primary health care may reflect the increase in demands on health services when the clinical condition is already aggravated.

A study reveals that primary care for HP has a direct impact on the number of emergency visits and hospitalizations. In addition to this, primary care programs have as positive results homeless users' satisfaction, the change in social status and housing conditions, and continuity of care through access to health services.[44]

In Brazil, it is necessary to highlight the primary care developed by the Street Outreach Office (SOO). They were established in 2011 through the Brazilian National Primary Care Policy (*Política Nacional de Atenção Básica*). The proposal of SOO teams is to expand HP's social rights on a territorial basis, offer care actions and ensure access to health services according to the health needs of this specific population.[45]

Another aspect highlighted in the indicators is complying with the therapeutic-care project and increasing confidence in professionals. This aspect reflects how living conditions on the street broadly influence HP's attitudes towards health professionals. Institutional violence, sometimes intersectioned with low self-esteem, depression and stigma, mark the relationship of this population with health services, and relate to the frequent reluctance to accept the proposed interventions.[46] Generally, proposed interventions are more accepted by HP when they are not tied to abstinence from alcohol and other drugs.[47] Furthermore, establishing a relationship of trust in the care process and work the HP's strengths are the basis for positive results of interventions, especially among young people. [32]

Regarding the category "Assessment of health conditions and disease", it is observed that one of

the main indicators is associated with the consumption of alcohol, tobacco and other psychoactive substances. HP has high rates of substance use as well as has a lower propensity for treatment. Users can use substances as a response to homelessness, stress, adversity and trauma. In relation to interventions to reduce the use of substances, we highlight those of harm reduction, pharmaceutical, housing, community, case management, peer support and promotion of sexual health.[48]

The indicators also concern the improvement of HP's physical, mental and sexual health, and quality of life. In this sense, it should be considered that the HP has three times higher rates of chronic diseases such as asthma, chronic obstructive pulmonary disease, epilepsy and cardiovascular problems.[49] Although it is a heterogeneous group, the health indicators of HP are usually poor, and are characterized mainly by a "trimorbidity", a combination of impairment in physical and mental health, added to the harmful use of alcohol and other drugs.[50]

The most recurrent indicators seek to include health problems that affect HP, especially in the United States, where more than half are hospitalized due to mental disorder and drug abuse.[51] Thus, the indicators of this category revolve around issues related to mental health, substance consumption and general health conditions or the presence of infectious diseases such as tuberculosis. [14,15,17,18,21,23,24,29,30,32,34,38,41]

Regarding the category "Assessment of social inclusion ", it is observed that structural elements such as living and working conditions are fundamental in the health-disease-care process of HP, as they allow assessing issues that are not necessarily under the control of individuals and influence the perception of health. In this sense, it is necessary to consider that interventions in this scope are complex, deeply influenced by the social production and reproduction of individuals. Thus, the indicators should take into account the diversity of the different social groups according to the socioeconomic insertion in the geopolitical space.

The indicators of the category "Assessment of social inclusion" appear strongly related to housing status, social participation and interpersonal relationships.[14,15,18,21,23,28,31,40] As for the indicator associated with social participation, it should be noted that this term is not easy to define and has a distinct conception among the studies selected in the review, which may limit the value of its use. Although using the indicator related to social participation may run into the term polysemy, it also has the ability to report a distinct set of indicators.[52]

The fourth category "Assessment of changes in behavioral and psychological characteristics" includes indicators such as: psychological care needs; satisfaction with life; autonomy for choices; sense of security and protection; feeling of hope; help-seeking behavior; and overcoming adversity.[19,27-29,33,39] At the psychological level, satisfaction with life,[19,28,33] aspects that relate to behavior changes[19,22,33] and increased feeling of hope of HP with severe mental disorder, that comes from supporting housing, enabling the rescue of identity and contact with family members, are taken into account.[22]

Mental disorders associated with HP are related to increased criminal behavior and victimization, homelessness, and discrimination. Among the different types of disorders, those related to alcohol and drug use stand out. Mental disorders are also closely associated with the street situation, indicating the importance of integrated approaches to health to overcome the problem.[53]

A Brazilian study on interpersonal relationships during the life of HP who use alcohol and other drugs, found that these relationships are associated with different social problems that occur due to social exclusion in the political, social, cultural and economic domains. The results showed that the rupture of these relationships had a negative effect on the development of individuals. As a result, it was observed that family instability, violence, substance abuse, and the death of people close to them influenced the permanence of people living on the streets. Thus, it is necessary to know the rupture of interpersonal relationships as a tool for the development of public policies aimed at strengthening personal bonds and housing conditions.[54]

It should be noted that the usefulness of a good indicator depends on conditions, namely: that it is historical in accordance with the specification or

way it is intended to be measured, standardized to ensure comparability; that has regularity, enabling the formation and analysis of time series of data; that are agreed by the institutions or groups that use them in order to allow comparability at the national and international level.[7]

Most articles selected in the review refer to indicators of quality assessment through quantitative logic, that is, they use the sum of users' responses to characterize qualitative attributes. The few qualitative or quantitative-qualitative articles were also not sufficient for the construction of the indicators, since they did not present more in-depth analyses on social reality, as well as the social actors involved in the actions were not associated with references of class, gender, generation and ethnicity. [7]

Despite the importance of using indicators to assess the effectiveness and impact of actions carried out at different levels of health care for HP, as this study resulted in, it is necessary to broaden the view on understanding the phenomenon of good practices in public health perspective. Taking more comprehensively, collective health is a field of theories and practices based on historical and dialectical materialism. It is based on the perspective of social determination and its actions in health aim to impact on the singular and collective dimension. The singular dimension refers to individuals articulated with the family and daily relationships, while the collective dimension refers to social groups according to the insertion in the territory.[55]

Thus, for them to be in fact good health practices for HP, a more accurate analysis of the structuring of societies to which they belong and the historical reasons for their non-social inclusion could open new perspectives of intervention, not only at the individual level, but as a social group on the margins of society and that does not have reintegration policies In countries with capitalist and neoliberal mode of production, the individual's productivity is the watershed of their social inclusion. Many of those who belong to this social group were relieved at some point for presenting at a certain time in their lives wear processes expressed by bio-psychic or social imbalances. Society must intervene from public and health policies to make them subject to health and quality of life rights.

The limitation of this study was the exclusion of articles from journals that were not openly accessible, despite having their abstracts included in the first stage of this review. Also, the analyzed studies described indicators for subgroups with a given diagnosis or specific demographic criteria, making it difficult to make comparations and inferences difficult.

Conclusion

The study identified indicators used to assess the impact of interventions produced by the various projects that aim to assist HP's health. They were grouped into categories because they are relational: User relationship with service; Assessment of health conditions and disease; Assessment of social inclusion; and Assessment of changes in behavioral and psychological characteristics. The diversity of the indicators indicated the multidimensional character of vulnerability of this population. The proposed empirical categories were inseparable and the dynamics between them must be understood in order to propose and assess comprehensive and effective health interventions. It can be said that the indicators also pointed to the multifactorial understanding of health and disease, since there was no incorporation of analytical categories subordinated to the social determination of the health-disease-care process. However, the indicators presented in the articles selected in the review can significantly contribute to the assessment of interventions carried out with HP in the health and nursing scope, as well as support evidence-based practices and policies.

Acknowledgments

We would like to thank the Librarian of the *Universidade Federal de São Paulo*, São Paulo Campus, Mrs. Andreia Cristina Feitosa do Carmo, and the Brazilian National Council for Scientific

and Technological Development (CNPq - *Conselho Nacional de Desenvolvimento Científico e Tecnológico*), for financing this research project.

References

1. Hungaro AA, Gavioli A, Christóphoro R, Marangoni SR, Altrão RF, Rodrigues AL, et al. Homeless population: characterization and contextualization by census research. Rev Bras Enferm. 2020;73(5):e20190236.
2. Hino P, Santos JO, Rosa AS. People living on the street from the health point of view. Rev Bras Enferm. 2018;71(Supl 1):732-40.
3. Engstrom EM, Lacerda A, Belmonte P, Teixeira MB. A dimensão do cuidado pelas equipes de Consultório na Rua: desafios da clínica em defesa da vida. Saúde Debate. 2019;43(Esp 7): 50-61.
4. Valle FA, Farah BF, Carneiro-Júnior N. As vivências na rua que interferem na saúde: perspectiva da população em situação de rua. Saúde Debate. 2020;44(124):182-92.
5. Koopmans FF, Daher DV, Acioli S, Sabóia VM, Ribeiro CR, Silva CS. Living on the streets: an integrative review about the care for homeless people. Rev Bras Enferm. 2019;72(1):220-9. Review.
6. Perleth M, Jakubowski E, Busse, R. What is 'best practice' in health care? State of the art and perspectives in improving the effectiveness and efficiency of the European health care systems. Health Policy. 2001;56(3):235-50.
7. Minayo MC. Construção de Indicadores Qualitativos para Avaliação de Mudanças. Rev Bras Educ Médica. 2009;33(Supl 1):83-91.
8. Hwang SW, Burns T. Health interventions for people who are homeless. Lancet. 2014;384(9953):1541-7. Review.
9. Peters M, Godfrey C, Mcinerney P, Baldini C, Khalil H, Parker D. Scoping reviews. In: Aromataris E, Munn Z, editors. Joana Briggs Institute Reviewer's Manual. Australia: The Joanna Briggs Institute; 2017. p. 6–24.
10. Ouzzani M, Hammady H, Fedorowicz Z, Elmagarmid A. Rayyan-a web and mobile app for systematic reviews. Syst Rev. 2016;5(1):2-10. Review.
11. Costa AP, Moreira A, Souza FN. webQDA - Qualitative Data Analysis. Aveiro: Aveiro University; 2019 [cited 2021 Nov 24]. Available from: https://www.ua.pt/pt/cidtff/page/23244
12. Bardin L. Análise de conteúdo. São Paulo: Edições 70; 2011. 229 p.
13. Díez E, Clavería J, Serra T, Caylà JA, Jansà JM, Pedro R, et al. Evalution of a social health intervention among homeless tuberculosis patients. Tuber Lung Dis. 1996;77(5):420–4.
14. Orwin RG, Garrison-Mogren R, Jacobs ML, Sonnefeld LJ. Retention of homeless clients in substance abuse treatment. Findings from the National Institute on Alcohol Abuse and Alcoholism Cooperative Agreement Program. J Subst Abuse Treat. 1999;17(1):45–66.
15. Lam JA, Rosenheck RA. Correlates of improvement in quality of life among homeless persons with serious mental illness. Psychiatr Serv. 2000;51(1):116–8.
16. Rosenheck RA, Dennis D. Time-limited assertive community treatment for homeless persons with severe mental illness. Arch Gen Psychiatry. 2001;58(11):1073–80.
17. Cook J, Pickett-Schenk S, Grey D, Banghart M, Rosenheck R, Randolph F. Vocational outcomes among formerly homeless persons with severe mental illness in the ACCESS program. Psychiatr Serv. 2011;52(8):1075–80.
18. Clark C, Rich AR. Outcomes of homeless adults with mental illness in a housing program and in case management only. Psychiatr Serv. 2003;54(1):78–83.
19. Yanos PT, Barrow SM, Tsemberis S. Community integration in the early phase of housing among homeless persons diagnosed with severe mental illness: successes and challenges. Community Ment Health J. 2004;40(2):133–50.
20. Jarjoura D, Polen A, Baum E, Kropp D, Hetrick S, Rutecki G. Effectiveness of Screening and Treatment for Depression in Ambulatory Indigent Patients. J Gen Intern Med. 2004;19(1):78–84.
21. Graham-Jones S, Reilly S, Gaulton E. Tackling the needs of the homeless: a controlled trial of health advocacy. Heal Soc Care Community. 2004;12(3):221–32.
22. Nelson G, Clarke J, Febbraro A, Hatzipantelis M. A narrative approach to the evaluation of supportive housing: stories of homeless people who have experienced serious mental illness. Psychiatr Rehabil J. 2005;29(2):98–104.
23. Cheng AL, Kelly PJ. Impact of an integrated service system on client outcomes by gender in a national sample of a mentally ill homeless population. Gend Med. 2008;5(4):395–404.
24. Savage CL, Lindsell CJ, Gillespie GL, Lee RJ, Corbin A. Improving health status of homeless patients at a nurse-managed clinic in the Midwest USA. Heal Soc Care Community. 2008;16(5):469-75.
25. McGuire J, Gelberg L, Blue-Howells J, Rosenheck RA. Access to primary care for homeless veterans with serious mental illness or substance abuse: a follow-up evaluation of co-located primary care and homeless social services. Adm Policy Ment Health. 2009;36(4):255–64.
26. Herman D, Conover S, Gorroochurn P, Hinterland K, Hoepner L, Susser E. A randomized trial of critical time intervention to prevent homelessness in persons with severe mental illness following institutional discharge. Psychiatr Serv. 2011;62(7):713–9.
27. Van Vugt MD, Kroon H, Delespaul PA, Dreef FG, Nugter A, Roosenschoon BJ, et al. Assertive community treatment in the Netherlands: Outcome and model fidelity. Can J Psychiatry. 2011;56(3):154–60.
28. Tsai J, Mares AS, Rosenheck RA. Housing satisfaction among chronically homeless adults: Identification of its major domains, changes over time, and relation to subjective well-being and functional outcomes. Community Ment Health J. 2012;48(3):255–63.
29. Padgett DK, Stanhope V, Henwood BF, Stefancic A. Substance use outcomes among homeless clients with serious mental illness: comparing housing first with treatment first programs. Community Ment Health J. 2011;47(2):227–32.
30. Patterson M, Somers J, Moniruzzaman A. Sealing the cracks: preliminary findings from an inter-ministry initiative to address chronic homelessness in British Columbia. J Interprof Care. 2012;26(5):426–8.
31. Tomita A, Herman D. The impact of critical time intervention in reducing psychiatric re-hospitalization following hospital discharge. Psychiatr Serv. 2012;63(9):935–7.
32. Krabbenborg MA, Boersma SN, Wolf JR. A strengths based method for homeless youth: effectiveness and fidelity of Houvast. BMC Public Health. 2013;13(359):1-27.
33. Kertesz SG, Holt CL, Steward JL, Jones RN, Roth DL, Stringfellow E, et al. Comparing homeless persons' care experiences in tailored versus untailored primary care programs. Am J Public Health. 2013;103(Suppl 2):331–9.

34. Patterson ML, Moniruzzaman A, Somers JM. Community participation and belonging among formerly homeless adults with mental illness after 12 months of Housing First in Vancouver, British Columbia: a randomized controlled trial. Community Ment Health J. 2014;50(5):604–11.

35. Padgett DK, Smith BT, Choy-Brown M, Tiderington E, Mercado M. Trajectories of recovery among formerly homeless adults with serious mental illness. Psychiatr Serv. 2016;67(6):610–4.

36. Kriegel LS, Henwood BF, Gilmer TP. Implementation and Outcomes of Forensic Housing First Programs. Community Ment Health J. 2016;52(1):46–55.

37. Wittenberg E, Bharel M, Bridges JF, Ward Z, Weinreb L. Using Best-Worst Scaling to Understand Patient Priorities: A Case Example of Papanicolaou Tests for Homeless Women. Ann Fam Med. 2016;14(4):359-64.

38. Tsai J, Gelberg L, Rosenheck R. Changes in physical health after supported housing: results from the collaborative initiative to end chronic homelessness. J Gen Intern Med. 2019;34(9):1703–8.

39. Varley AL, Montgomery AE, Steward J, Stringfellow E, Austin EL, Gordon AJ, et al. Exploring quality of primary care for patients who experience homelessness and the clinicians who serve them: what are their aspirations? Qual Health Res. 2020;30(6):865–79.

40. Chhabra M, Spector E, Demuynck S, Wiest D, Buckley L, Shea JA. Assessing the relationship between housing and health among medically complex, chronically homeless individuals experiencing frequent hospital use in the United States. Health Soc Care Community. 2020;28(1):91–99.

41. Zeitler M, Williamson AE, Budd J, Spencer R, Queen A, Lowrie R. Comparing the impact of primary care practice design in two inner city UK homelessness services. J Prim Care Community Health. 2020;11:2150132720910568.

42. Springer S. Homelessness: a proposal for a global definition and classification. Habitat Int. 2000;24(4):475-84.

43. Omerov P, Craftman AG, Mattsson E, Klarare A. Homeless persons' experiences of health- and social care: a systematic integrative review. Health Soc Care Community. 2020;28(1):1-11. Review.

44. Jego M, Abcaya J, Stefan DE, Calvet-Montredon C, Gentile S. Improving health care management in primary care for homeless people: a literature review. Int J Environ Res Public Health. 2018;15(2):309. Review.

45. Vargas ER, Macerata I. Contribuições das equipes de Consultório na Rua para o cuidado e a gestão da atenção básica. Rev Panam Salud Publica. 2018;42:e170.

46. Magwood O, Leki VY, Kpade V, Saad A, Alkhateeb Q, Gebremeskel A, et al. Common trust and personal safety issues: a systematic review on the acceptability of health and social interventions for persons with lived experience of homelessness. Plos One. 2019;14(12):e0226306. Review.

47. Baxter AJ, Tweed EJ, Katikireddi SV, Thomson V. Effects of Housing First approaches on health and well-being of adults who are homeless or at risk of homelessness: systematic review and meta-analysis of randomised controlled trials. J Epidemiol Community Health. 2019;73(5):379–87. Review.

48. Miler JA, Carver H, Masterton W, Parkes T, Maden M, Jones L, et al. What treatment and services are effective for people who are homeless and use drugs? A systematic 'review of reviews'. PLoS One. 2021;16(7):e0254729. Review.

49. Lewer D, Aldridge RW, Menezes D, Sawyer C, Zaninotto P, Dedicoat M. Health-related quality of life and prevalence of six chronic diseases in homeless and housed people: a cross-sectional study in London and Birmingham, England. BMJ Open. 2019; 9:e025192.

50. Hewett N, Halligan A, Boyce T. A general practitioner and nurse led approach to improving hospital care for homeless people. BMJ 2012; 345:e5999.

51. Wadhera RK, Choi E, Shen C, Yeh RW, Joynt Maddox KE. Trends, causes, and outcomes of hospitalizations for homeless individuals: a retrospective cohort study. Med Care. 2019;57(1):21-27.

52. Pleace N, Quilgars N, Jayne D. Improving health and social integration through housing first: a review. In: Nicholas P. Delegation Interministerielle a L'hebergement et a L'acces au logement. France: DIHAL; 2013. 63 p.

53. Gutwinski S, Shreiter S, Deutscher K, Fazer S. The prevalence of mental disorders among homeless people in high-income countries: an updated systematic review and meta-regression analysis. PLoS Med. 2021;18(8):e1003750. Review.

54. Espíndola MI, Bedendo A, Silva EA, Noto AR. Interpersonal relationships and drug use over time among homeless people a qualitative study. BMC Public Health. 2020;20:1746.

55. Egry EY. A glance at the good practices of nursing in primary care [Editorial]. Rev Bras Enferm. 2018;71(3):930-1.