Review Article

A Scopus based bibliometric analysis on Mental Health Literacy research among the Youth: A global perspective

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Abstract

Objective: Research on Mental Health Literacy (MHL) has not been gained ample focus from policymakers and researchers particularly in developing countries. SDG 3.4 by 2030, associated with lowering the prevalence of non-communicable diseases including mental health problems through effective interventions. This study aims to initiate an insight into the role of MHL research among youth, against the increasing burden of mental illness, through a bibliometric review.

Methods: Scopus database was used to excerpt pertinent MHL research among youth published from 1977 to 2020 across the globe. This review identified the major components which can be listed under the following themes that include the trend of research work, the top most countries, authors, and institutions.

Results: The Scopus database was used to extract 225 research articles. The gradual escalation in the number of publications on MHL was noticed. The trend of citations showed declination. Developed countries have more focused on mental health literacy research among youth than in developing countries.

Conclusion: Considering the global burden of mental illness among the youth, the quantity and quality of MHL research steered among youth across the globe is discontented. Greater

attention from policymakers and researchers is required to address the prevalence of mental illness, by offering adequate MHL to the youth.

Keywords: Mental health literacy, Mental health, Mental illness, Youth

Background

World Health Organization (WHO) reiterates health literacy is essential for enhancing the determinants of health [1]. Mental health literacy (MHL) is a component of the same, which would influence the measures of global health especially in the preventive and promotive mental health care services [2]. MHL is a concept coined by Anthony F Jorm, et al. which was defined as "knowledge and beliefs about mental disorders which aid their recognition, management or prevention'' [3].

Although MHL studies are being done worldwide among adults, we could find only a few types of research have been done among youth despite their vulnerability to an array of mental health issues and illnesses [4]. There is 1.8 billion youth in the world [5]. MHL is a relatively new area of study; especially in developing countries. There are a lot of MHL studies conducted by developed nations. However, it is an emerging area of research in developing countries [4]. It has become a focus of researchers over the past few decades because MHL is the most significant prerequisite for early recognition and intervention in mental disorders [6]. Extensive research on MHL is a demand for a current global scenario where mental illnesses account for 13% of the global burden of disease and affect 10–20% of children and young people, yet these remain underdiagnosed and undertreated. Anxiety and depression are the eighth and ninth topmost causes of disability among youth and depression is the ninth leading cause [7,8]. Alarmingly, suicide is the third chief cause of death among youth in the world [9]. 70 % of mental illnesses can be detected before age of 25 years and that contributes lion share to the disease burden during the second decade of the life span [10]. Poor knowledge and lack

of awareness about psychological wellbeing can lead to neglect of early signs of poor mental health hygiene [8]. Mental health conditions restrict the sustainable development of a person and act as a barrier to reaching the fullest potential a person can achieve in his life. [11]. Mental illnesses are posing a threat to the morbidity of the people in the society even though the tip of the iceberg is seen to be tiny with the lesser number of symptomatic patients. The functional impairment and distress caused by mental ailments affect the family members and their socio-cultural and occupational interactions and outcome. The global burden of mental illnesses is escalating due to the rise in the prevalence of youth mental illness and unavailability of mental health care service delivery [12].

Globally, Mental illness and neurologic disorders among the youth lead a heavy burden in terms of mortality, morbidity, and disability across the globe [13]. MHL is the cardinal solution to overcome this menacing problem. Active and in-depth research on youth MHL is supposed to be happening worldwide in different areas such as recognition of mental health disorders, help-seeking, treatment modalities, support and first aid skills, and prevention of mental health disorders. It can come up with new interventions, educational modules, community action programs, and youth training, to improve the mental health status of youth, thus contributing to the economic development of the country. According to WHO, there is no physical health without mental health [14]. To retain both physical and mental health, in line with the scientific evidence, a good amount of quality research must happen in both developed and developing countries on youth MHL because the youth is a valuable human resource and future promise of each country.

In this current scenario, we have focused a Scopus based bibliometric analysis on the topic of mental health literacy research among youth across the globe, intending to generate awareness about the development of MHL research among the youth in the world, because the prevalence of mental illness among the youth is on the peak. This study depicts the statistical evidence of

MHL research among youth by illustrating (a) the number of MHL research conducted from 1977 to2020, (b) countries focused on youth MHL research, (c) the fruitful authors, and (d) the institutions.

Methods

This review is a Scopus based bibliometric analysis of the scientific work disseminated in the faculty of youth MHL. The first article on MHL among youth was published in 1977 and the latest update of publications till 1st December 2020 was included for the bibliometric analysis. Bibliometrics is a commonly used technique, which analyse related scientific articles to examine the knowledge, structure and expand the research area [15]. The methodology used for this study is Scopus based bibliometric analysis. Currently, Scopus is the largest database containing the abstracts and citations of peer-reviewed literature, references, and bibliographic data [16,17]. Scopus consist of 34,346 peer-reviewed journals in the domains of health science, life science, physical science, and social science [18].

Search Strategy

Electronic databases usually use to perform bibliometric reviews to explore research impacts. Scopus is considered to be the giant in the medical and social science database because of its reliability and authenticity apart from the peer-reviewed and accuracy of the rich data that overweighs Scopus from other wide accepted databases. Document search has been carried out in this study by using the search term (Mental health literacy AND Youth). Document search helps to capture a large pool of studies that were conducted across the globe in the field of MHL among youth.

Inclusion and exclusion criteria

Research papers that have been included in the Scopus database only were considered. Reliability estimation was done by reviewing the title, abstracts, and full content of published

research papers. The search was limited to only articles published in the English language. Studies published in all the quartiles and both open and other access type journals were included. All the types of documents such as research articles, reviews, letters, and a short note were published in the Scopus database from 1977 to 2020 were considered for bibliometric analysis. Sources such as Book series, Conference proceedings, and Trade publications were excluded by using the exclude option to limit the analysis to peer-reviewed articles.

Data Analysis

Advanced document search was performed by using the search term (Mental health literacy AND Youth) to get the list of peer-reviewed studies from the Scopus database according to the inclusion and exclusion criteria. We analysed the trend of MHL studies among youth and their citations from 1977 to 2020, MHL research among youth in the top 10 countries, the top 10 productive authors, and the number of citations, institutions, and the number of cited publications.

Results

Advanced search in Scopus has retrieved 225 research documents in which 21 documents were excluded. Of the 21 excluded documents, which consist of 15 books, 3 book series, 1 conference proceedings, and 2 journal articles which were published in the French language. There were 204 eligible documents retrieved for bibliometric analysis from 1977 to 2020 which are focused on MHL among youth in which 63 studies from open access remaining from other access types. All the studies were published in 127 peer re-reviewed journals by 60 authors across 35 countries in the world.

Figure-1: Trend of Publications from 1977 to 2020
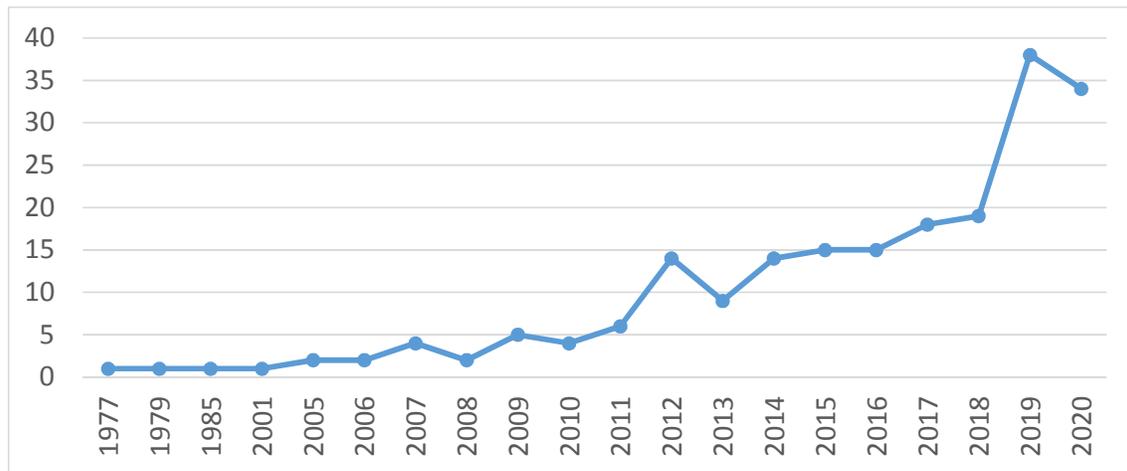
Figure-2: Trend of citations from 1977 to 2020
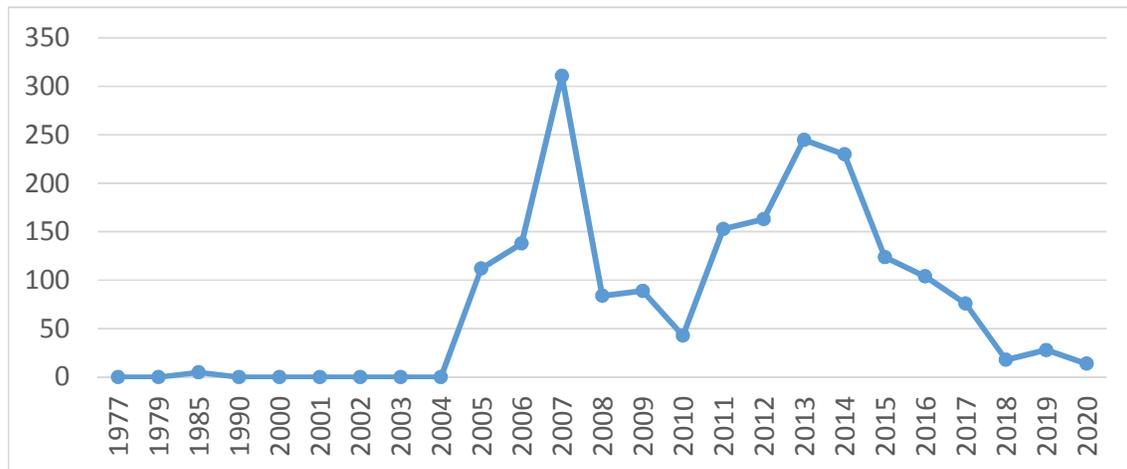
The trend of publications is on the rice whereas the trend of citations lowered. The first research study which was closely related to MHL among youth was published by the year 1977. From 1977 to 2004, there were only three publications. The number of publications started to increase from 2005 to 2007 with two publications. The growth of publications remains unsteady from 2008 to 2010 by facing intermittent ups and downs. There was a sudden rise in the number of publications from 2011 (6 documents) to 2019 & 2020 (38 & 34 documents). There were no

citations from 1977 to 2004 except 5 citations in 1985 and 1 citation in 2001 for 3 studies that have been published in the same period. The remarkable growth in citations was started by the year 2005 with 112 citations and it reached on the peak by the year 2007 with 311 citations. Citations were declined to 43 in number by the year 2010 and there was a sudden upward growth started by the year 2011 (153) and it stopped by the year 2013(245). Citations were gradually dropped to 27 and 14 in number by the year 2019 and 2020.

Table-1: Top 10 Countries who published studies in mental health literacy among youth

Name of the Country	Number of Publications
Australia	67
United States of America	62
Canada	47
United Kingdom	16
India	6
New Zealand	6
Switzerland	4
Ireland	4
Germany	3
Hong Kong	3

Australia has the highest number of publications (67) among 34 countries across the globe that has researched the topic 'mental health literacy among youth' followed by the United States of America (62 publications) and Canada (47 publications). The United Kingdom also has done a fair number of studies and has 16 publications. India (7 publications) and New Zealand (6 publications) are in the fifth, sixth positions. Ireland (4 publications), Germany (3 publications), and Hong Kong (3 Publications) are in the last three positions.

Table-2: Top 10 productive authors, their number of publications and citations

Author	Number of Publications	Number of Citations	Period
Jorm A F	16	585	2005-2020
Kutcher S	11	177	2012-2020
Wei Y	9	176	2012-2020
Ranahan P	6	16	2010-2019
Swann C	5	22	2017-2020
Vella S A	5	26	2017-2020
Hickie D	4	89	2008-2020
Hurley, D	4	18	2017-2020
Reavley, N J	4	52	2017-2020
Wright A	4	470	2005-2007

Anthony F Jorm is a researcher who has done extensive and in-depth research on the area of MHL among youth and credits to 585 citations from 16 publications from 2005 to 2020. Wright A has the second-highest citations (470) from 4 publications in the period of 2005 to 2007. Kutcher S has 177 citations from 11 publications from 2012 to 2020. Citations remain almost the same (176) for Wei Y from 9 publications in the same period. Ranahan P is in the fourth position with 6 publications and eighth position in terms of citations (16) from 2010 to 2019. Hickie, D is a productive author who has 89 citations from 4 publications. Reavley N J is next to Hickie, D with 52 citations from 4 publications for the period of 2017 -2020. Swan C and Vella S A have published the same number of publications (5) for the same period (2017-2020) however there is a slight change in the number of publications (22& 26). Hurley D has 18 Citations from 4 publications for the period of three years from 2017 to 2020.

The University of Melbourne has published the highest number of studies (24) in Scopus indexed journal and has a good number of citations (127) followed by Dalhousie University with 15 publications although second highest in the number of citations (182). IWK healthcare has 171 citations from 10 publications. Orygen Youth Health, Monash University, The University of Sydney, and Melbourne school of population and global health have an equal number of publications (8) although each institution differs in the number of citations, in the

order of (147), (81), (83) and (41). Orygen Research Centre has got the highest number of citations (517) although the number of publications (6) is lesser than the University of Ottawa, Canada and Centre for youth mental health, which have almost the equal number of publications (7) although the rate of citations is different (82 and 143).

Table-3: Publications and Citations of the top 10 institutions

Name of Institutions	Number of Publications	Citations
University of Melbourne	24	127
Dalhousie University	15	182
IWK Healthcare	10	171
Orygen Youth Health	8	147
Monash University	8	81
The University of Sydney	8	83
Melbourne School of population and global health	8	41
University of Ottava, Canada	7	82
Centre for Youth Mental Health	7	143
Orygen Research Center	6	517

Discussion

This research reveals the results of an analysis of MHL research among youth in the world. One of the largest international and national databases of medical research, Scopus is used as the source of data for bibliometric analysis. This study focused on the bibliometric review of the following analysis such as the trend of MHL studies among youth and their citations, MHL research among youth in the top 10 countries, the top 10 productive authors, and the number of citations, institutions, and the number of cited publications. The research analysis showed steady growth in MHL research in India. The trend of publications from 1977 to 2020 has revealed that there was no MHL research was carried out before 2005 except 4 publications. The number study has gradually escalated from 2 publications in 2005 to 38 and 34 publications in 2019 and 2020. We have not noticed a remarkable growth in MHL research among youth. Policymakers, Government and Non-governmental organizations, and researchers trying to

lower the number of cases of mental illness among youth by improving MHL, however, there is no effective impact about reducing the high prevalence of mental illness among youth because stakeholders are not accessing the information and practicing the interventions, Moreover, there is retardation in in-depth MHL research across the globe, which all eventually results in the feature of declination in the number of citations from 1977 to 2020. Analysis of MHL research among the top 10 countries gives a clear idea that developed countries have more focused on this topic than developing countries. Around 35 countries have concentrated on mental health literacy research although very few countries like Australia, the United States of America, Canada, and the United Kingdom made a remarkable vibe in terms of improving mental health literacy among youth. These countries are carried out in-depth research as evidenced by their number of publications such as Australia (67publications), the USA (62 publications), Canada (47 publications), and the UK (16 publications). India is the only developing country that finds a place among the top 5 countries by having 6 publications in the area of MHL among youth which is not commendable when we consider the population of youth and prevalence of mental illness among the youth in India.

Mehrotra S and equals [published a study on mental health promotion in youth in 2013. The study observations high pointed to the necessity to widen the application of available theories and research studies on MHL for incorporating the neglected components of mental health as a whole. The study explicated the vitality of the interventions focussing on the rural areas, which would be able to facilitate the positive faculties of mental health and to include the aspects of enhancement of mental wellness of the people who dwell in the remote areas [19].

Profile of alcohol-dependent patients in rural deaddiction centre was published by Edam R, Nukala S, Datta in the year 2015. Study findings were, 44% of the subjects had comorbid depressive disorder.18% had anxiety-related illness.66% had sexual dysfunction. 28% had Anti-social behavior due to the influence of alcohol. The study dictated the necessity of

awareness of mental health in youth, especially on the ill effects of alcohol, and providing them with de-addiction facilities in rural areas [20]. Dhillon, M.D. Deepak, S. conducted interventional research among female adolescents was published in 2017, which focused on body image media literacy. The researchers found that body dissatisfaction among the female youth is a growing concern leading to a variety of mental health issues ending up in stress and depression of youth. The findings of the interventional study stressed the significance of media literacy to tackle the problem of body image dissatisfaction which has a negative impact on youth mental health [21].

A cross-sectional survey on Digital literacy and substance abuse awareness using tablets in indigenous settlements in Kerala was conducted by Pillai N.M, Mohan A, Gutjahr G, Nedungadi P which was published in the year 2018. This study aimed to understand the prevalence of substance abuse and the development of a substance abuse literacy module for training young indigenous people who are addicted to alcohol, tobacco, and drug [22]. Saraf G and colleagues conducted a cross-sectional survey on MHL of adolescent girls of Indian urban setting to explore MHL and help-seeking behaviour. The study results showed MHL of depression and suicidal behaviour among the participants was low. Only 8% of young women could identify depression and very few of them could mark mental health professionals are the right source of help [23]. A community model of mental health promotion - Its relevance in education - The story of MEHAC in India was the recent study published in the year 2018 by Venkateswaran C, and Vincent, A.S. This article described the significance of the community model for mental health promotion which was developed by the Mental Health Care and Research Foundation (MEHAC) to reduce the prevalence of mental illness among the youth. This article highlights the inventiveness of MEHAC in responding to mental health issues in India, describing how MEHAC in action facilitates mental health promotion and education [24].

MHL research among the youth is very much essential to promote mental health, prevent mental illness, recognise mental illnesses, and initiate early help-seeking to prevent poor prognosis. Analysis of the top 10 productive authors revealed that all the authors are from a developed country. Anthony F Jorm is highest in the number of citations (585) with 16 publications. The researcher has conducted different aspects of enhancing MHL in youth consist of stigmatizing attitude in youth, mental health first aid, depression and schizophrenia literacy in youth, youth awareness about headspace and beyond blue, recognition of mental illness and help-seeking in youth. All the studies were focused on the aspect of preventive psychiatry to promote the mental health of youth through universal and selective and indicated prevention interventions. Writ A is the second-highest in the number of citations (470) from 4 publications. The researcher has done in-depth interventional studies to uplift the youth's mental health by augmenting MHL. These intensive interventional studies were focused on the impact of a community education campaign to build MHL among the youth. This study explicated, there is no rapid growth in mental health literacy research even though the topic of importance is wide. Top institutions that have conducted mental health literacy research among youth are the university of Melbourne (24 publications), Dalhousie University (15 publications) in first and second positions. Orygen research center has 517 publications from 6 publications which means these studies were a true source of information for researchers and were able to influence policymakers and youth.

This bibliometric review identifies the truth that MHL research conducted from 1977 to 2020 is fairly good in number, whereas, the progression of MHL research and citations remain rust compared to the burden of mental illness and the world youth population. We need to understand the reality that young age is a period of vulnerability in terms of biological and psycho-social aspects. Their social interactions and relationships with other members of society are highly influenced by peer influence, media, and their perceptions about the external world.

This critical phase of life is a co-morbid risk factor of both psychotic and neurotic mental disorders in youth [25, 26]. Sustainable developmental goal 3.4 by 2020, focuses on the reduction of almost 33% of the premature death rate associated with non-communicable disease including mental illness [27]. The feasible corrective and preventive action for maintaining our youth's mental health is through; ensuring youth has adequate MHL on mental health and mental illness like any other physical ailments [28]. Therefore, widespread research on MHL among youth must be carried out across the globe because the current scenario strongly demands it.

The present bibliometric analysis of mental health literacy research among youth has its limitation because of the exclusion of non-Scopus indexed journals. This could probably point to selection bias when we choose studies that are published in a peer-reviewed journal. Moreover, our search was limited to journal articles that were published in the English language. Self- citations are also considered for citation analysis. On top of all these limitations, the study tried to bring the demand for mental health literacy research among youth, across the globe by highlighting the statistical evidence of publications, citations, and authors; however, updating on Scopus is a continuous process**.**

To conclude, the bibliometric analysis on MHL research among youth portraits a clear picture that the quality of research studies is comprised, in terms of reducing the morbidity and mortality associated with mental illness, by meeting their needs on achieving MHL. Our study reiterates that wide–range research on MHL among youth must happen by educating the youth about recognition of mental illness, heal seeking behavior, treatment modalities, first aid skills, and supportive mechanisms, effects, and prevention of mental illness. Systematic priority setting, Policy changes, viable economic support, institutional capacity-building, community awareness campaigns, youth congress, availability of mental health service providers, and

mental health research would serve as facilitators to shrink the puffing stage of mental health issues among the youth.

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