Execution and Efficiency of Primary and Secondary Prevention in Family Practice: Overview

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Abstract: Primary care serves as the cornerstone for developing a strong healthcare system that guarantees positive health outcomes and health equity. Therefore, our aim by this review is to highlight the efficiency and primary and secondary prevention methods in family practice, and moreover we tried to evaluate the knowledge of family physicians about these methods of prevention. Literature searches were performed in, MEDLINE, PubMed, and Google Scholar, Databases for all published articles up to November 2016, we limited our search English studies only, only human trails were included, we also designed an inclusion criterion for our search which determine the studies that have to be included, and most important among those criteria is all studies discussing knowledge and preventive efficiency among family doctors, therefore all studies that evaluate the efficiency of primary and secondary prevention in family practice. We concluded that , medical care is important for building a strong health care system that ensures positive health outcomes, efficiency and performance, and health equity. It is the very first contact in a healthcare system for individuals and is identified by comprehensiveness, coordination, and longitudinality. It supplies family-focused and private and community-oriented look after avoiding, treating or easing typical health problems and impairments, and promoting health.

Keywords: MEDLINE, PubMed, and Google Scholar, Databases, Family Practice.

1. INTRODUCTION

Primary care serves as the cornerstone for developing a strong healthcare system that guarantees positive health outcomes and health equity $^{(1,2)}$. In the past century, there has actually been a shift in healthcare from focusing on disease-oriented etiologies to taking a look at the connecting impacts of aspects rooted in culture, policy, environment, and race/ethnicity. Such a shift called for person/family-focused and community-oriented primary care services to be offered in a continuous and collaborated way in order to meet the health needs of the population $^{(3)}$.

Nevertheless, regardless of near agreement around the globe that medical care is an important part of any healthcare system, there is a considerable imbalance between primary and specialty care in the United States (USA) and many other parts of the world. For example, in the USA, in 2008, amongst 954,224 total physicians of medication, 784,199 were actively practicing and 305,264 were practicing in primary care specialties (32% of the overall and 39% of actively practicing physicians)⁽⁴⁾. The percentage of professionals was over 60% of all patient care physicians.

The WHO as well as the majority of national healthcare authorities highly advise preventive services considering that there is a clear and overwhelming evidence of their efficiency in numerous areas, particularly in main avoidance. Primary avoidance has shown to be four times as cost-effective as secondary avoidance ⁽⁵⁾. Counselling and vaccinations are the most important preventive services ⁽⁶⁾, however there is also clear proof for some screening procedures. Despite the fact that these services can easily be offered, particularly in a primary care setting, the delivery of preventive services remains low ⁽⁷⁾.

Our aim by this review is to highlight the efficiency and primary and secondary prevention methods in family practice, and moreover we tried to evaluate the knowledge of family physicians about these methods of prevention.

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2. METHODS

Search strategy:

Literature searches were performed in, MEDLINE, PubMed, and Google Scholar, Databases for all published articles up to November 2016, we limited our search English studies only, only human trails were included, we also designed an inclusion criterion for our search which determine the studies that have to be included, and most important among those criteria is all studies discussing knowledge and preventive efficiency among family doctors, therefore all studies that evaluate the **efficiency of primary and secondary prevention in family practice**, we conducted this search strategy through Mesh terms in each database which are: Primary care, OR Family practice , OR general practice, OR family physicians, Combined with search terms: preventive, AND efficiency , AND effectiveness. Then Authors investigate each study manually for matching of criteria, we also search particular studies references for similar article concerning any of mentioned aims of this study.

3. RESULTS AND DISCUSSION

General Overview:

In spite of evidence of the efficiency of preventive services and the advancement of released nationwide guidelines ^(9,10), actual rates of shipment of preventive health care services remain low ⁽¹¹⁾. In a current study of family medicine in Michigan, conclusion of all relevant cancer screening tests, consisting of breast, cervical, colorectal, and prostate cancer screening, was attained for only 3% of females and 5% of males aged 50 and older ⁽¹²⁾. Nationwide, rates of preventive services delivery are also low, with 77% of females having had a Papanicolaou test in the past 3 years and just 56% of females aged 50 years and older having had a breast examination and mammogram in the preceding 1 to 2 years. Only 30% of adults aged 50 years and older have actually undergone fecal occult blood screening within the previous 2 years, and only 33% have actually ever gotten proctosigmoidoscopy ⁽¹³⁾.

Numerous studies have actually examined why preventive services delivery rates are low. The most typical barriers recognized are absence of time throughout the workplace see, inadequate insurance coverage compensation, patient refusal to comply or talk about with suggestions, and lack of doctor proficiency in therapy strategies ^(14,15,16,17,18). Constant with the finding that time is a prominent barrier, Zyzanski and coworkers have shown that high-volume physicians carry out less preventive services ⁽¹⁹⁾. A recent research study revealed that time spent in office check outs has actually increased somewhat in the past decade ⁽²⁰⁾, physicians continue to claim that not having enough time is a barrier to carrying out preventive services ^(21,22,23).

Most patients require more than 1 or 2 preventive services each year. In a study of patients in a family medicine waiting space, an average of 25 services were due at the time of the see for each patient, according to recommendations of the US Preventive Services Task Force (USPSTF)⁽²⁴⁾. Moreover, the number of suggested preventive services is increasing as brand-new tests are developed and research study shows the value of preventive care for chronic diseases. Some nationwide firms (e.g., the American Cancer Society) have developed their own guidelines, increasing the number of screening tests to be thought about. Given contending monetary needs to see a greater number of patients while offering increasing levels of preventive services, it deserves examining whether supplying the suggested preventive services for the patients in a practice can be reasonably accomplished ⁽²⁴⁾.

Specific studies results:

We identified a very important study ⁽²⁵⁾ that aimed to evaluate the patterns of treatment of patients in primary avoidance who were entered in the Family Medicine, Université de Sherbrooke (FAMUS) register and to calculate the possibility of their receiving a hypolipidemic representative according to the presence of various risk profiles, this study revealed of the 52,505 patients in the register, 48,190 were determined as remaining in primary avoidance. Of these, 22,250 (46.2%) had a total lipid profile on record, and 2300 had received a prescription for a hypolipidemic agent (4.8%). Patients under medicinal treatment had considerably greater lipid worths. The adjusted relative risk of being treated with a hypolipidemic representative was 1.3 for cigarette smokers, 1.3 for diabetic patients, 2.0 for those with a favorable family history of premature cardiovascular disease, 2.2 for hypertensives and 3.3 for men over 45 years of age or ladies over 55 years, compared to patients who were not taking lipid-lowering medications. The number of threat factors was a lot more strongly associated with the likelihood of being treated. and concluded that, couple of patients in primary avoidance in the register were treated with a pharmacological agent. The presence of associated danger factors in this study was a crucial

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predictor for treatment, suggesting that patients in primary prevention are being examined internationally as a function of all of their threat elements, not just their lipid and lipoprotein levels. More attention, nevertheless, has to be directed to the section of the population with several threat elements whose lipoprotein profile is unknown or who are not being dealt with to standard target levels ⁽²⁵⁾.

Most randomized scientific trials and observational studies have actually concentrated on comparing the quality of care in between physicians, with relatively little released research study comparing family physicians with either physicians or nurses ^(26,27,28,29). In a study comparing physician performance in the care and attainment of outcomes for patients with diabetes, Lenz et al(30) found significant differences in documents but not in patient outcomes. Some have actually argued that nurses may boost medical care due to the fact that they are trained specifically for health promo and education ^(31,32). In fact, Hopkins et al ⁽³³⁾ discovered that compared with physicians, family doctor performed much better at secondary avoidance, evaluation, and counseling. In addition, Kinnersely et al ⁽²⁶⁾ and Sakr et al ⁽²⁷⁾ found that patients took care of by family doctor received more info about their care and were less likely to return for follow-up suggestions. Relating to self-reported patient fulfillment, research studies have discovered no considerable differences whether care was offered by family physicians or physicians ^(34,35). The literature hence recommends some advantages of care supplied family physicians, potentially making these clinicians more than just sufficient replacements throughout physician scarcities. Considering that NP and family doctor salaries are normally less than those of physicians, this literature recommends that practices utilizing family physicians could potentially offer quality care at lower expense to the practice ^(36,37); however, differences in performance and patient mix and requires for supervision and backup may negate this advantage. A current Cochrane review reported that many studies have actually not found substantial cost distinctions ⁽³⁸⁾.

These research studies have compared care provided by private clinicians by straight connecting specific patients with the type of clinician ^(26,27,28,37) or by comparing care supplied by practices entirely staffed by either physicians. Proof recommends, nevertheless, that care quality needs to be seen from a systems perspective and according to the correlations amongst individuals, not merely from the point of view of specific people ^(39,40,41). Whereas proof therefore exists that family doctor are capable of offering quality care, this ability does not always indicate they are utilized effectively when added to the common medical care practice. Rather than focusing on specific ability, this research study for that reason analyzed the efficiency of practices utilizing various midlevel clinicians to better understand at a practice level the impact of family doctor on quality of care; in addition, because of the intricacy of handling patients with diabetes in medical care practices ^(42,43,44).

4. CONCLUSION

Medical care is important for building a strong health care system that ensures positive health outcomes, efficiency and performance, and health equity. It is the very first contact in a healthcare system for individuals and is identified by comprehensiveness, coordination, and longitudinality. It supplies family-focused and private and community-oriented look after avoiding, treating or easing typical health problems and impairments, and promoting health.

There are lots of factors figuring out quality of care and secondary and primary avoidance in family medicine, such as ease of access (consisting of schedule of after-hours care, length of office wait time, travel time to a consultation, and flexibility in selecting a PCP), scientific quality, interpersonal aspects, connection, structure through which primary care is delivered, and insurance coverage. Although studies in global settings have compared quality of care in primary care and specialty care settings.

REFERENCES

- [1] J. E. Lawn, J. Rohde, S. Rifkin, M. Were, V. K. Paul, and M. Chopra, "Alma-Ata 30 years on: revolutionary, relevant, and time to revitalise," *The Lancet*, vol. 372, no. 9642, pp. 917–927, 2008.
- [2] J. Hall and R. Taylor, "Health for all beyond 2000: the demise of the Alma-Ata Declaration and primary health care in developing countries," *Medical Journal of Australia*, vol. 178, no. 1, pp. 17–20, 2003.
- [3] World Health Organisation, "The World Health Report 2008: Primary Health Care, Now more than ever," 2008, http://www.who.int/whr/2008/whr08_en.pdf.
- [4] U. S. Department of Health and Human Services, "Health Resources and Services Administration (HRSA)," 2011, About Health Centers: Program Requirements, <u>http://bphc.hrsa.gov/about/requirements/index.html</u>.

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- [5] Tengs TO, Adams ME, Pliskin JS, et al. Five-hundred life-saving interventions and their cost-effectiveness. Risk Anal. 1995;15(3):369–390. [
- [6] Sox HC., Jr Preventive health services in adults. N Engl J Med. 1994;330(22):1589–1595.
- [7] Anderson LM, May DS. Has the use of cervical, breast, and colorectal cancer screening increased in the United States? Am J Public Health. 1995;85(6):840–842.
- US Preventive Services Task Force. Guide to Clinical Preventive Services. 2nd ed. Baltimore, Md: Williams & Wilkins; 1996.
- [9] *Healthy People 2000: National Health Promotion and Disease Prevention Objectives.* Washington DC: US Dept of Health and Human Services; 1991. DHHS publication PHS 91-50212.
- [10] Anderson LM, May DS. Has the use of cervical, breast, and colorectal cancer screening increased in the United States? Am J Public Health. 1995;85:840–842.
- [11] Ruffin MT, Gorenflo DW, Woodman B. Predictors of screening for breast, cervical, colorectal, and prostatic cancer among community-based primary care practices. J Am Board Fam Pract. 2000;13:1–10.
- [12] National Center for Health Statistics. *Healthy People 2000 Review*, 1998–99. Hyattsville, Md: US Dept of Health and Human Services; 1999. DHHS publication PHS 99-1256.
- [13] Burack RC. Barriers to clinical preventive medicine. Prim Care. 1989;16:245–250.
- [14] Kottke TE, Brekke ML, Solberg LI. Making "time" for preventive services. Mayo Clin Proc. 1993;68:785–791.
- [15] McPhee SJ, Richard RJ, Solkowitz SN. Performance of cancer screening in a university general internal medicine practice: comparison with the 1980 American Cancer Society Guidelines. J Gen Intern Med. 1986;1:275–281.
- [16] Spitz MR, Chamberlain RM, Sider JG, Fueger JJ. Cancer prevention practices among Texas primary care physicians. J Cancer Educ. 1992;7:55–60.
- [17] Wender RC. Cancer screening and prevention in primary care. Obstacles for physicians. Cancer. 1993;72(3 suppl):1093–1099.
- [18] Zyzanski SJ, Stange KC, Langa D, Flocke SA. Trade-offs in high-volume primary care practice. J Fam Pract. 1998;46:397–402.
- [19] Mechanic D, McAlpine DD, Rosenthal M. Are patients' office visits with physicians getting shorter? N Engl J Med. 2001;344:198–204.
- [20] Campion EW. A symptom of discontent. N Engl J Med. 2001;344:223-225.
- [21] Collins KS, Schoen C, Sandman DR. *The Commonwealth Fund Survey of Physician Experiences with Managed Care*. New York, NY: The Commonwealth Fund; 1997.
- [22] Hadley J, Mitchell JM, Sulmasy DP, Bloche MG. Perceived financial incentives, HMO market penetration, and physicians' practice styles and satisfaction. Health Serv Res. 1999;34:307–321.
- [23] Medder JD, Kahn NB Jr, Susman JL. Risk factors and recommendations for 230 adult primary care patients, based on US Preventive Services Task Force guidelines. Am J Prev Med. 1992;8:150–153.
- [24] Xhignesse M1, Laplante P, Niyonsenga T, Courteau J, Grant AM. Dyslipidemias and the primary prevention of cardiovascular disease: analysis of the FAMUS primary care register. Can J Cardiol. 2000 Jul;16(7):879-85.
- [25] Kinnersley P, Anderson E, Parry K, et al. Randomised controlled trial of nurse practitioner versus general practitioner care for patients requesting "same day" consultations in primary care. BMJ. 2000;320(7241):1043– 1048.
- [26] Sakr M, Angus J, Perrin J, Nixon C, Nicholl J, Wardrope J. Care of minor injuries by emergency nurse practitioners or junior doctors: a randomised controlled trial. Lancet. 1999;354(9187):1321–1326.
- [27] Hooker RS, McCaig LF. Use of physician assistants and nurse practitioners in primary care, 1995–1999. Health Aff (Millwood). 2001;20(4):231–238.

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- [28] Running A, Kipp C, Mercer V. Prescriptive patterns of nurse practitioners and physicians. J Am Acad Nurse Pract. 2006;18(5):228–233.
- [29] Lenz ER, Mundinger MO, Hopkins SC, Lin SX, Smolowitz JL. Diabetes care processes and outcomes in patients treated by nurse practitioners or physicians. Diabetes Educ. 2002;28(4):590–598.
- [30] Cintron G, Bigas C, Linares E, Aranda JM, Hernandez E. Nurse practitioner role in a chronic congestive heart-failure clinic—in-hospital time, costs, and patient satisfaction. Heart Lung. 1983;12(3):237–240.
- [31] Shuler PA, Huebscher R. Clarifying nurse practitioners' unique contributions: application of the Shuler Nurse Practitioner Practice Model. J Am Acad Nurse Pract. 1998;10(11):491–499.
- [32] Hopkins SC, Lenz ER, Pontes NM, Lin SX, Mundinger MO. Context of care or provider training: the impact on preventive screening practices. Prev Med. 2005;40(6):718–724.
- [33] Roblin DW, Becker ER, Adams EK, Howard DH, Roberts MH. Patient satisfaction with primary care: does type of practitioner matter? Med Care. 2004;42(6):579–590.
- [34] Cipher DJ, Hooker RS, Sekscenski E. Are older patients satisfied with physician assistants and nurse practitioners? JAAPA. 2006;19(1):36, 39–40, 42–44.
- [35] Roblin DW, Howard DH, Becker ER, Kathleen Adams E, Roberts MH. Use of midlevel practitioners to achieve labor cost savings in the primary care practice of an MCO. Health Serv Res. 2004;39(3):607–626.
- [36] Safriet B. Health care dollars and regulatory sense: the role of advanced practice nursing. Yale J Regul. 1992;9(2):417-487.
- [37] Laurant M, Reeves D, Hermens R, Braspenning J, Grol R, Sibbald B. Substitution of doctors by nurses in primary care. Cochrane Database System Rev. 2005;Apr 18(2):CD001271.
- [38] Edmondson AC. Speaking up in the operating room: how team leaders promote learning in interdisciplinary action teams. J Manage Stud. 2003;40(6):1419–1452.
- [39] Cohen D, McDaniel RR, Crabtree BF, et al. A practice change model for quality improvement in primary care practice. J Healthc Manag. 2004;49(3):155–168.
- [40] Tallia AF, Lanham HJ, McDaniel RR Jr, Crabtree BF. 7 characteristics of successful work relationships. Fam Pract Manag. 2006;13(1):47–50.
- [41] Zazworsky D, Bolin J, Gaubeca VB. Handbook of Diabetes Management. New York, NY: Springer; 2006.
- [42] Grant RW, Pirraglia PA, Meigs JB, Singer DE. Trends in complexity of diabetes care in the United States from 1991 to 2000. Arch Intern Med. 2004;164(10):1134–1139. [
- [43] Peterson KA. Diabetes management in the primary care setting: summary. Am J Med. 2002;113(Suppl 6A):36S-40S.