J Rational Pharmacother Res

An Official Publication of ISRPT

RATIONAL PHARMACOTHERAPEUTICS

SWOT Analysis in Medical Sciences

Avinash. Vikram Turankar, Vijay Motghare, Parag Kinage, Rushikesh Deshpande*, Shyamal Sinha, Sunita Avinash Turankar**, Rashmi Sinha**, Kundan Nivangune**

Abstract

The SWOT analysis matrix is commonly and effectively utilized in many industries like management, sports, engineering, but not so in health care and medical education systems. A SWOT Analysis looks at the strengths, weaknesses, opportunities and threats that are relevant to an organization in a new venture. It comprises of Strength: positive aspects; Weakness: negative aspects; Opportunities: in future & Threats: which could affect the system adversely. Incorporation of SWOT matrix analysis in health sector stands as a definitely handy tool for medical personnel and its applicability spans from quality patient care, appropriate drug selection, utilization of specific investigations, efficient utilization of equipments, high standards in management of a hospital and practically vast areas of medicine. In view of its varied advantages combined with the enthusiasm of the medics towards learning and application of newer avenues, the SWOT analysis pose a long and promising future in medical sciences.

Key Words

Medical Education Technology (MET), SWOT analysis, Undergraduate teaching learning

Received- 4.6.14 **Revised -14.6.14** **Accepted-25.6.14**

From the Department of Pharmacology, Govt. Medical College Nagpur, *B.J Medical College, Pune, **Grant Medical College and Sir JJ Group of Hospitals , Mumbai,

Correspondence to : Dr Avinash Turankar, Associate Professor, Deptt. of Pharmacology, Govt. Medical College, Nagpur Maharashtra, India.

E-mail: aturankar@hotmail.com

Introduction

SWOT analysis (SWOT matrix) is a strategic planning method used to evaluate the internal strengths and weaknesses, the opportunities it presents for growth and improvement, and the perceived or expected threats which presents in the particular situation.[1,2] The SWOT system which is so commonly used elsewhere in almost every field (engineering, sports, system analysis, management, personality development, etc.) but not so in medicine. It may provide us a modern way of recording, analyzing, understanding the patient condition and so many other things like even drugs, equipments etc.

The concept can be easily understood through an analogy of a half filled glass, which is quoted for emphasizing the "positive view" of the situation wherein the glass is either half full or half empty. With the renewed vision we can say that the glass is 50 % filled (Strength), its 50 % not filled (Weakness). It can be filled to full capacity (Opportunity). Remaining 50% should not go waste (threat). There is nothing new with the ideology excepting its application in medicine.

S- *Strength; analyzes the positive aspect*

W- *Weakness; analyzes the negative aspect*

O- *Opportunity; analyzes the positive side of future*

T- *Threat; analyzes the negative side of future*

What is a traditional SWOT analysis?

In the following section the use of traditional SWOT

analysis done in various research papers is reviewed.

Strengths

Traditional SWOT analysis views strengths as current factors that have prompted outstanding organizational performance. Some examples include the use of state-of-the-art medical equipment, investments in healthcare informatics, and a focus on community healthcare improvement projects. [1] Other strengths might include highly competent personnel, a clear understanding among employees of the organization's goals, and a focus on quality improvement.

Weaknesses

Weaknesses are organizational factors that will increase healthcare costs or reduce healthcare quality. Examples include aging healthcare facilities and a lack of continuity in clinical processes, which can lead to duplication of efforts. Weaknesses can be broken down further to identify underlying causes. For example, disruption in the continuity of care often results from poor communication. Weaknesses also breed other weaknesses. Poor communication disrupts the continuity of care, and then this fragmentation leads to inefficiencies in the entire system. Inefficiencies, in turn, deplete financial and other resources. [1,2]

Other common weaknesses include poor use of healthcare informatics, insufficient management training, a lack of financial resources, and an organizational structure that limits collaboration with other healthcare organizations. A payer mix that includes large numbers of uninsured patients or Medicaid patients can also negatively affect an organization's financial performance, and a lack of relevant and timely patient data can increase costs and lower the quality of patient care.

Opportunities

Traditional SWOT analysis views opportunities as significant new business initiatives available to a healthcare organization. Examples include collaboration among healthcare organizations through the development of healthcare delivery networks, increased funding for healthcare informatics, community partnering to develop new healthcare programs, and the introduction of clinical protocols to improve quality and efficiency. Integrated healthcare delivery networks have an opportunity to influence healthcare policy at the local, state, and national levels. They also have an opportunity to improve patient satisfaction by increasing public involvement and ensuring patient representation on boards and committees. Organizations that are successful at using data to improve clinical processes have lower costs and higher-quality patient care.[1]

Threats

Threats are factors that could negatively affect organizational performance. Examples include political or economic instability; increasing demand by patients and physicians for expensive medical technology that is not cost-effective; increasing state and federal budget deficits; a growing uninsured population; and increasing pressure to reduce healthcare costs.

The purpose of this article is to get an overview of SWOT analysis applications in medical science with suitable examples and its potential wider scope in different areas of medical science.

Review of Utility in Medicine

The medical fraternity is habitually intensive and extensive analyser of anything that comes their way. This SWOT analysis is in common practice in other fields, but, very few have tried it in medical science. The gaining importance of this kind of analysis in the healthcare system can be highlighted by its increasing use for the analysis of various health care services. The established fact that the patient care moves from the acute, disease-centered approach to a chronic, patient-centered approach, provides immense opportunities for the application of SWOT analysis. One such effort to analyze the health care reforms, have shown promise and provided useful insights for drafting the reforms for chronic care.[3] Not only that, but a systematic analysis of a national programme, highlighting the potential threats and opportunities for betterment have paid rich dividends. [4] Electronic patient record (EPR) collects the health information about individual patients or populations. The glimpse of the EPR systems role, proficiency and futuristic applicability in health care is easily evaluated through SWOT.[5]

Fig.1 Application of SWOT Analysis Matrix in Teaching

Example no 1: Pharmacology of ciprofloxacin (The SWOT analysis matrix) for undergraduate understanding.

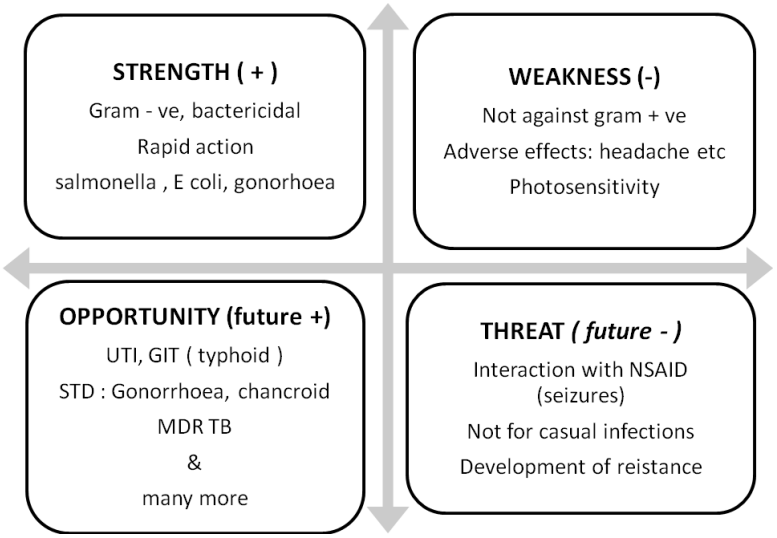
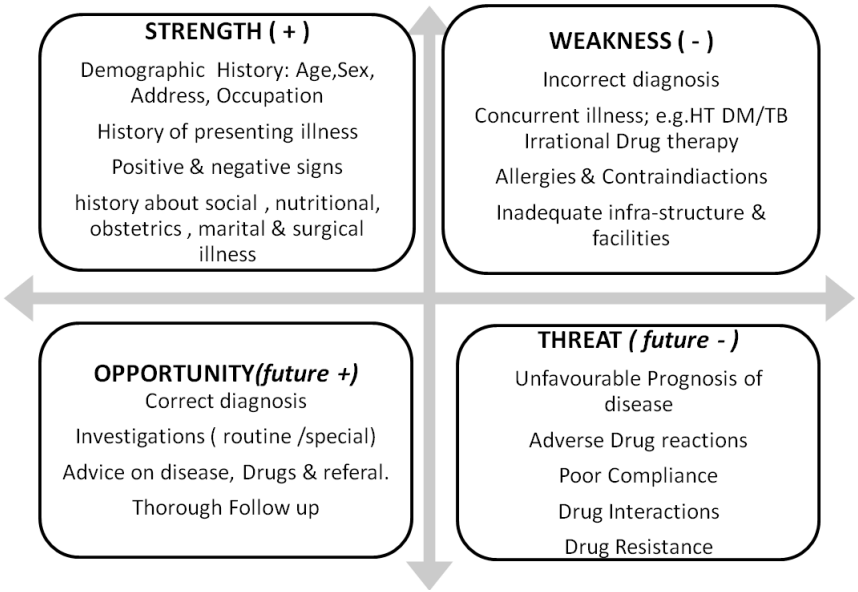


Fig.2 Application of SWOT analysis towards a patient;

Example no 2: SWOT analysis of a patient (the points noted here may differ from individual to individual &case by case)

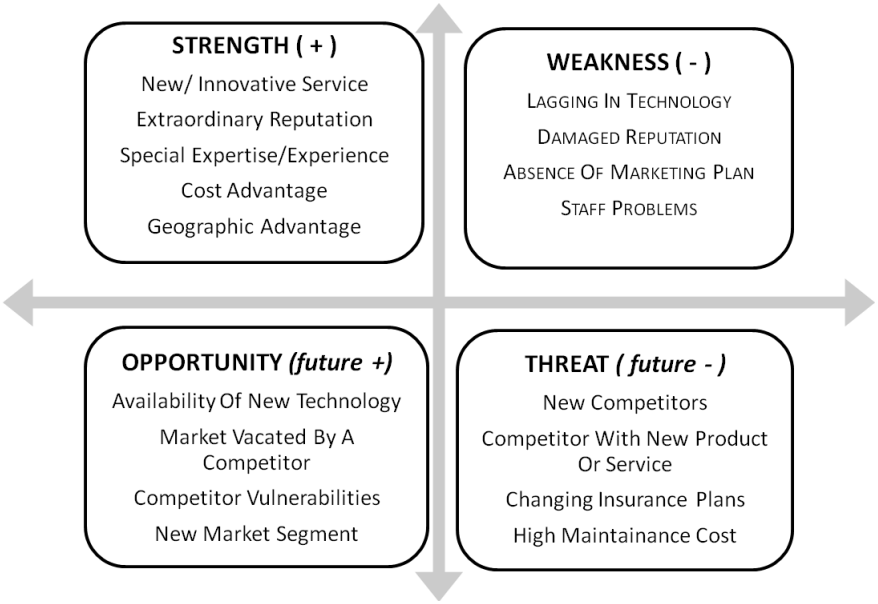


Infrastructure and resources are an integral part of the health care system and their maintenance is as important as their initiation. SWOT analysis has been tried by various health care societies and organizations [6] , and for the development of hospital or any department [7] , as it provides the exact details and necessary steps to be taken to achieve the goals. To enumerate a few more, bacterial resistance monitoring [8] , applicability of new intervention [9] , sanitation campaign [10] ; are the instances where SWOT matrix has provided definite directions for improvement. These examples are few considering the potential the SWOT tool has. Thus, practically any aspect of the health care system can be analysed with its use, providing huge insights for the management of patients, department, hospital, health programmes, etc.

Apart from all these specialised areas the SWOT

Fig.3 Application of SWOT analysis towards Health Care Establishment

Example no 3: SWOT analysis for hospitals/ medical groups/ individuals in private practice. Such an analysis twice a year will help discover internal and external issues that are the key to moving forward and continuing or improving the success.



matrix analysis can be applied in routine learning process of undergraduate and postgraduate medical subjects.

In order to understand how this technique and method of SWOT matrix analysis can be applied in various areas. Some of the examples from medical sciences are considered here for better understanding.

SWOT analysis can be tried on anything of interests like any medical equipment, investigation, CT, MRI, hospital staff, Medical fraternity, literally anything. Initially 3 point SWOT can be tried (meaning minimum three points in all directions of SWOT) (see figure 1 for ciprofloxacin as example). Then improvising to 5 point, eight point SWOT and so on..

There are certain guidelines that need to be considered during the analysis are as follows.

General rules of SWOT analysis matrix:- [11,12]

Though no specific guideline is available, but, these simple rules will make the entire exercise meaningful and applicable.

1. Points of analysis should be beyond "right and wrong" and beyond "good or bad notion".
2. It should represent a perspective,
3. More of factual thinking,
4. Gather points without grammar,
5. Lot of information should be in a compressed form
6. Information should be specific, objective, and real time.
7. Contrast and compare issues also should be included
8. Apply Context: Distinguish should be done between where the situation actually is today, and where it could be in the future.

Advantages of SWOT analysis matrix:-

Incorporation of SWOT analysis provides a few definitive advantages to any industry which includes;

1. Objectivity towards thinking.
2. Balanced thinking; in all directions, good or bad.
3. Minimizes time frame.
4. Enables the investigators to keep track of the thought process.
5. Comprehensive type of thinking than by parts thinking
6. Simplicity in understanding and communicating,
7. Can be effectively & efficiently incorporated in clinical practice.

Conclusion

Incorporation of SWOT matrix analysis in health sector shall be a definitely handy tool for medical personnel and its applicability spans from quality patient care, appropriate drug selection, utilization of specific investigations, efficient utilization of equipments, high standards in management of a hospital and practically vast areas of medicine. In view of its varied advantages combined with the enthusiasm of the medics towards learning and application of newer avenues, the SWOT analysis pose a long and promising future in medical sciences.

References

1. Gretzky W. Strategic planning and SWOT analysis. Essentials of Strategic Planning in Healthcare, Chapter 5. Health Administration Press, 2010. Available on http://www.ache.org/pdf/secure/gifts/Harrison_Chapter5.pdf [Accessed on 22-08-2014]
2. SWOT analysis. Available on http://en.wikipedia.org/wiki/Swot_analysis [Accessed on 22-08-2014]
3. Van Durme T, Macq J, Anthierens S, Symons L, Schmitz O, Paulus D, Van den Heede K, Remmen R. Stakeholders' perception on the organization of chronic care: a SWOT analysis to draft avenues for health care reforms. BMC Health Serv Res 2014 ;14:179.
4. Wazir MS, Shaikh BT, Ahmed A. National program for family planning and primary health care Pakistan: a SWOT analysis. Reprod Health 2013;10(1):60.
5. Klinis S, Markaki A, Kounalakis D, Symvoulakis EK. Monitoring reasons for encounter via an electronic patient record system: the case of a rural practice initiative. Int J Med Sci 2012; 9(8):704-7.
6. Dhawan BN. Indian Pharmacological Society: A SWOT analysis. Indian J Pharmacol. 2011;43(6):621-3.
7. Terzi Z, Vukasinovi? Z, Bjegovi?-Mikanovi? V, Jovanovi? V, Janici? R. [SWOT analysis: the analytical method in the process of planning and its application in the development of orthopaedic hospital department]. Srp Arh Celok Lek 2010 ;138(7-8):473-9.
8. Witte W. Resistance monitoring of human pathogenic bacteria in Germany, SWOT analysis and examples. Int J Med Microbiol 2006 ;296 Suppl 41:63-7.
9. Kang SU. GPR119 agonists: a promising approach for T2DM treatment? A SWOT analysis of GPR119. Drug Discov Today 2013 ;18(23-24):1309-15.
10. Paedeshi G, Shirke A, Jagtap M. SWOT Analysis of Total Sanitation Campaign in Yavatmal District of Maharashtra. Indian J Community Med 2008;33(4):255-9.
11. Dressen J. SWOT analysis in healthcare - how to make your practice more profitable. Available on http://www.jdmediasurge.com/swot-analysis-in-healthcare/ [accessed on 22-08-2014].
12. Gandolf S. SWOT: The High-Level Self Exam that Boosts Your Bottom Line. Case studies, medical advertising agency, February 28, 2013. Available on http://www.healthcaresuccess.com/blog/medical-advertising-agency/swot.html [Accessed on 22-08-2014]

Source of Support Nil

Conflict of Interest Not Declared

How to Cite This Article : Turankar AV, Motghare V, Kinage P, Deshpande R, Sinha S, Turankar SA, Sinha R, Nivangune K . SWOT Analysis in Medical Sciences. J Rational Pharmacother Res 2014; 2(2): 39-43