

THE IMPACT OF MULTICHANNEL ENGAGEMENT TOOLS ON THE QUALITY OF CARE PROVIDED BY A HEALTH CARE PROFESSIONAL

O IMPACTO DAS FERRAMENTAS DE ENGAJAMENTO MULTICANAL NA QUALIDADE DOS CUIDADOS PRESTADOS POR UM PROFISSIONAL DE SAÚDE

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Manuscript first received/Recebido em: 28/03/2017 Manuscript accepted/Aprovado em: 09-06-2017

ABSTRACT

Today's in the global era of digital word, things are changing and evolving around the health care professional with a patient centricity and a integrated approach for a better and healthier society, the access for accurate information for the patients is crucial to deliver the best solution for the society at large. Tools to engage the health care professionals to make them confident and improve the current practices are always on the priority, through several multichannel engagement tools that allow them to enhance the capability of their diagnostic and treatment pattern for a particular disease area while keeping the patient centricity view in the back of mind and to provide best possible solution for their customers. the purpose of the study is to analyze the impact of multichannel engagement tools on the quality of care provided by a health care professional actively serving the best practice for the community, quality information about the relevant therapy area for health care professional through email, website and conducting scientific webinar. 200 health care professionals from the hospital, private clinics were the part of this study and the given responses were analyzed and treated through statistical parameter for drawing the conclusion. the results showed that the information through the email, website marketing and scientific sessions may contribute the quality practice of health care professionals.

Key words: health care professional, multichannel engagement tool, statistical parameter, scientific session

RESUMO

Hoje em dia, na palavra digital global, as coisas que envolvem o cuidado profissional da saúde estão mudando em termos de foco no paciente e abordagem integrada para uma sociedade melhor e mais saudável, o acesso a informações precisas é crucial para oferecer a melhor solução para a sociedade em geral. Ferramentas para envolver profissionais de saúde. Os profissionais para torná-los confiantes e melhorar suas práticas atuais são sempre prioritários através de várias ferramentas de engajamento multicanal que lhes permitem melhorar seu diagnóstico e capacidade de tratamento padrão para uma determinada área de doença, mantendo a atenção para a melhor solução para seus clientes. O objetivo do estudo é analisar o impacto das ferramentas de engajamento multicanal na qualidade dos cuidados prestados por um profissional de saúde que atua ativamente nas melhores práticas para a comunidade, informações de qualidade sobre a área de terapia relevante para profissionais de saúde por meio de e-mail, site e Realização de webinar científico. 200 profissionais de saúde de hospitais, clínicas privadas fizeram parte deste estudo e as respostas dadas foram analisadas e tratadas através de parâmetros estatísticos para chegar à conclusão. Os resultados mostram que as informações provenientes de e-mail, marketing de sites e sessões científicas podem contribuir para uma prática qualificada de profissionais de saúde.

Palavras-chave: profissional de saúde, ferramenta de engajamento multicanal,

Introduction:

Today's in the global era of digital word, things are changing and evolving around the stakeholders particularly the health care professional with a patient centricity and a integrated approach for a better and healthier society, the access for accurate information for the patients, customers and the stakeholders are crucial for making them committed to deliver the best solution for the society at large

Tools to engage the health care professionals to make them confident and improve the current practices are always on the priority, through several multichannel engagement tools that allow them to enhance the capability of their diagnostic and treatment pattern for a particular disease area while keeping the patient centricity view in the back of mind and to provide best possible solution for their customers.

quality of care provided by a health care professionals is a value measured and determined through health care resources utilized for the patients, assessments for something utilized good enough for its purpose to increase the life expectancy of patients through the

measurements including curing the illness, minimize the risk factors by accurate diagnostics and the management of disease and the prevention care health care indicators.

the purpose of quality health care is to provide the quality services to individual and the population to improve the outcome for the society in which it was instituted. however Health care quality is the degree to which health care services for individuals and populations increase the likelihood of desired health outcomes (understand quality measurement, 2016).

The need for pharma companies to adapt to Multichannel Engagement (MCE) is becoming increasingly crucial. “Multichannel engagement is changing the whole digital ecosystem. Experts reported that as physicians become more digitally inclined, in turn they are expecting pharma companies to deliver accurate information more quickly and that can be accessed via a variety of devices.

Health care professional now being more conscious to have the information required to manage the patient and for this objective to be accomplished, the usage of electronic devices including smart phone, tablet pcs would be helpful tools to access the right information to engage them while having these tools another good approach for health care professional to engage them is the surfing and searching the information therefore many of them utilize their free lance time for visiting the website, portal, social networking for best available information for their patients to manage well, and the management is now very vigilant to provide these access for the health care professional for more attraction thru web marketing to displays the right in formation of the brands and the disease.

Having the multichannel tools can bring various consumer experiences for each health care professional thru by adapting the best available technologies allow to gain the customer experience to gain the commercial excellence thru the entire communication channel adaptation strategies.

Objective:

The purpose of this study to identify the key channels that impact the health care professionals practice for the patients and to engage them by providing the quality information thru various media about the disease area, medicinal information and the strategies to gauge their prescribing habits, current trend, future dimension and the pharmaceutical dynamics imposed to the patients by the health care professionals.

Scope of Research:

This research study confines the trend of pharmaceutical companies in Pakistan's current multichannel strategies for health care professional to engage them at their best place where they want their relevant information to make their practice for the patient's centric philosophy.

Literature Review:

The need for pharma to adapt to Multichannel Marketing (MCM) is becoming increasingly crucial. "Multichannel marketing is changing the whole digital ecosystem that we live in and that's a positive thing," observes James Musick, Director of Social Media and Web Communications of Genentech.

According to the report since 2010 the number of doctors willing to see sales reps has declined by 20%. In 2012 11% had severely restricted or completely barred pharma sales rep access, with an additional 34% imposing some access restrictions. This is happening in European countries such as Switzerland, Russia and Italy with changes pending in France.

Quality of care plays an important role in describing the [iron triangle of health care](#), which defines the intricate relationships between quality, cost, and accessibility of health care within a community. (M.R, 1998), information management systems incorporate in providing the quality care and the services improves the outcome and enriched the iron triangle of health care professional for the society as large.

Digital technologies will become a major part of our healthcare system, with particular impact in primary care. However, many healthcare professionals are not sufficiently informed of the digital technologies available today and how they and their patients can gain substantial benefit from adoption of these technologies

in association with the informations provided to health care professionals, there are several key aspects describing the quality of care services to individual from the health care professional.

1. Patient focused aim to providing quality care according to the patient needs.
2. Patient compliance aim to improve through several information toolkit.
3. Safety measures aim to avoiding any mishaps to patients from care that is intended to help them.
4. Effective measures aim to avoiding overuse and misuse of care.
5. Timely measures aim to reducing wait times and harmful delays for patients and providers.

Efficient ways outs avoiding waste of equipment, supplies, ideas and energy with face-to-face physician access and field force numbers decreasing, health authority budgetary and

payer reimbursement pressures and more patient-driven treatment choices, brand loyalty requires marketing initiatives at multiple levels. With having a huge sales force for accessing the chamber of health care professional now being replaced with the new field of digital tools to engage them where they want to be engage based on the preference they expect from these strategies. Based on these facts and figures from international medical informatics shows that huge number of medical representative around the globe affected through operating pharmaceuticals and has been declined from a high of 20000 in 2006 to about 180000 in 2010.

The cost evaluated for individual face to face interaction with the engagement with health care professional became the important factor for this channel. Therefore according to the international medical informatics survey indicates that the field force of 100 representative in which only 20 out of 100 effectively deliver the brand message properly while rest of them just dropping the cards or leave away without detailing and face to face interaction that means the depending on sales force may be the wastage of resource and time to be utilized effectively.

The challenges faced by pharmaceutical organization, how pharmaceutical marketers recreate channel communication? Some of the management operated thru sales force with a massive number is now focusing on realignment of the current strategies with the new digital strategies to enhance the face to face interaction with the health care professionals. Today's environment the big challenged face by the pharmaceutical representatives that they have many similar brands to share with HCPs with the less time to have with interaction moreover with the limited option of new brands as well as the new drugs in pipeline limits the interaction to share the quality of information among the health care professional that allows marketer to rethink the communication channels to fight against the race of the time bound make them more smarter, sharper strategically and more important brands to be discussed with the health care professional and this ways of working would be in win situation both the representatives and the health care professional to gauge them on real time conversation While installing the multichannel programs and the strategies for the purpose of communication with health care professional there will an opportunity for the representatives to enhance the communication and interaction time spent in the chamber while having these tools that do not only estimate the per call cost but also to evaluate the messages exchanged during this activity for the commercial excellence.

E detailing engagements enhance the commercial viability of the brands thru specific situation that representative has in the chamber where the healthcare professional ay is encountered as

effective as they expect from the management. Research shows that there is no leveraging the health care professional by searching the quality of communication by a media that enhance the capability to access at a right time. Most of the HCPs like in touch upon the pharmaceutical ways of innovation and always try to realigned the strategies adopted by them likewise the management of pharmaceuticals always redesigned restructure the portfolios of information contained and try to access them at a best place to translate the brand perceptions thru the disease at a point of no return and customized the brand messages. There will be always an option for regenerating the commercial excellence thru different media strategies and the current era of digital world, things are customized enough to gauge the customers at a point of where they can easily communicate the brand awareness and thru providing the quality of information about particular disease and the placement of the valuable brands among the best fit in approach that allows them to enhance the commercial excellence thru generating the prescription by a face to face interaction, web marketing, customized emailing or a short messaging with less time to stay with a an effective ways of communication.

In today's era of war of brands, most of the pharmaceutical management tries to adapt the available best technology to access and transform the message where possible. One of the big challenge in today's practice that there are many options among the similar disease management and there are confusing state of the mind o include the best option for enhancing the experience of management of disease for the patient well being and to make them healthy thru available options. The obligations and the current practice limit the access to the health care professional for the representative for the detailing with the conventional detailing methods.

The digital tools may support the finding the best information for the health care professional to access and enhance the expertise on the variety of disease management options, in developed countries they are constant changing the options available for the particular management whereby in the developing countries HCPs education thru seminar and symposium may help them to enhance the spectrum of information thru expert penal and four further accessing the informatics HCPs are encouraging to touch upon the media they have for channeling them on a page of information the western are doing similar things at a time, by approaching this medium the western expert panelist help the local HCPs thru sharing their best practices of treating the patients for a particular disease.

Advertising of brands for the particular disease management for health care professional is one of the integrated tools in multichannel engagement program pharmaceutical management employed for health care professionals, in this scenarios the representatives are advised to

visit the health care professionals and tell about the feature and benefits of the visiting the web site, according to the local pharmaceutical drug regulatory authority, no advertisement must be placed for the patients rather the health care professional and for the smooth operation, health care professional are suggested to get the registration for the particular websites contain the relevant information they require for their practice best for their patients for a particular disease and its better management.

By visiting the websites of relevant therapy area the key messages of the brands management can place while the full access of the brand information's may be upon the request of a health care professional. There are many choices among the brand placement for the health care professional while visiting to the specific website for gathering the information about disease. It has been shown that every pharmaceutical company deployed the web marketing of their existing brands and for their newly launched brands that design specific page for that particular brands and encourage health care professional to specifically view and share the comments for the better understating the patient centric philosophy of treating and the management and help health care professional to make their day to day practice for diagnosing and the management for their patients.

One of the key advantage of web marketing that the data for visited viewer can help marketing management for deploying the better competitive offerings for those Health care professional who regularly visiting the side and want to enhance the clinical experience thru these ways. Social networking tools may be relevant source of information about the brands messages for the company and the health care professionals. Pharmaceutical management continuously improving the data base thru applications of current available social networking channels to assemble the healthcare professional on the same page for the disease to be better understood, diagnosed, treated and managed as for the better patient care while having these platforms information exchange about particular topic may have clear concepts about what to understand and what to be delivered. There are so many school of thoughts exist among the health care professional who look the patients particular problem thru their own ways of standards.

Deploying these social networking may help them to remain the same page as the standard operating procures are used for management of particular disease. Engaging thru different multiple ways is always a great success of the management for an effective interaction over a single medium to be deployed at one time and at one place. Remember that channel preferences are depending upon the situation and the health care professional if denies any of

the medium must be protected the brands information and avoid communication in real time situation.

Pharmaceutical market dynamics are essentially different in rising markets compared to developed ones. The underlying reasons for these differences include different or virtually missing compensation systems, limited access to healthcare and unique pricing and distribution aspects. In addition, multinational companies (MNCs) face compliance risks that require management in accordance with strict policies, including the U.S. Foreign Corrupt Practices Act (FCPA) and its UK equivalent. In some cases, failure to comply has led to high turnover among emerging market general managers, especially in countries that have entrenched, corrupt business practices.

Key success factor is to establish sustained local capabilities with strong local talent. Talent acquisition costs are also increasing steadily, bringing the fully-loaded cost of a pharma sales rep in China, for example, closer to developed country levels. In some Eastern European countries and Russia, it is a common practice to hire physicians as sales reps, because doctors can often earn multiples of their government-paid salaries.

Continuing education, training and sustainable career paths in a MNC remain important attributes in the war for local talent. However, MNCs may be slowly losing this edge to local branded generic manufacturers, which historically have attempted to lure talent away from big pharma companies once people complete their initial training and gain hands-on multinational commercialization experience. Now, the local players offer similar perks and career paths as well. In general, rates of attrition seem to be uncharacteristically high in emerging markets, since companies do not shy away from stealing trained talent from anyone, anywhere.

Partner Physician engagement and the creation of brand equity can be even more important for the success of the branded generic when the original drug has been off-patent for some time and other generics have already been launched in the market. Companies with a branded generics portfolio tend to have divisions focused on certain therapies. This can foster the opportunity for them to increase their depth in a specific therapy by conducting focused market research and to develop a good understanding of a market's medical needs, which in turn can help them to gain recognition among physicians. For example, Sandoz remains the leader in tuberculosis therapy in India because it has the most relevant portfolio, which it markets as a comprehensive package.

Pharmaceutical companies can build their emerging market presence by sponsoring local certification and training programs in collaboration with local and international institutions.

Educating customers about a company's products and the diseases they address can raise awareness and generate new revenue opportunities in markets that may have less understanding of Western medicine. One avenue involves the creation of training regimens to "certify" physicians in the use of a company's product. Novo Nordisk, for example created the Changing Diabetes in Children Program (CDiC) which addresses barriers for children living with diabetes in developing countries. The program provides free insulin and supplies, in addition to a comprehensive training manual for healthcare professional and diabetes educators.

A well-executed multichannel approach can achieve goals and accelerate results by extending the sales force through digital and on-line interactions. For example, China has 120 cities with populations that exceed one million, and 832 million people in more rural areas now have access to healthcare.¹¹ Even faster growth rates appear to be occurring in mid-size cities. While many MNCs have been aggressively pursuing market access in China, few have successfully penetrated the Chinese market and achieved sales or geographic scale.¹² To keep pace with the rate of change, to maximize their growth potential and effectively compete with local firms, MNCs should consider leveraging non-traditional channels that go beyond the individual sales representatives.

In general, providers in emerging markets will likely continue to rely on individual interactions with sales reps as a means to gain trust and educate practitioners about a product. However, specifically for branded generics, an integrated multi-channel strategy can enhance the brand and provide lower-cost solutions that align with these lower priced markets. Some pharma players are experimenting with innovative ways to reach health care providers. For example, pharmaceutical sales reps in China often have difficulties meeting with doctors in person due to high patient loads, time pressures and a variety of other factors. In addition, in Turkey and Russia, there is an emerging trend by governments to limit sales rep access to physicians. As a consequence, some companies are exploring new ways to reach doctors through digital channels such as the Internet and email.

"There has been a paradigm shift away from face to-face meetings," reports Danny Shenkman, Manager of Digital Marketing at Jansen Inc. Therefore the report suggests alternative marketing plans must be utilized as part of a multichannel plan, moving towards a high-touch, and personalized approach through phone calls, detailing, webcasts and physician product portals Jan van den Burg, Vice President CRM Strategy Europe of Veeva Systems expands, "Intra and cross-channel interaction management are key to achieve a consistent and impactful message but this has to be done in conjunction with delivering value to the

physician. Leveraging CRM and multichannel interaction delivery through a single platform will enable optimal execution. Particular focus is required on the comprehensiveness and accuracy of the customer master database to identify and authenticate customers appropriately across channels.”

While the physician market remains a primary focus, the empowered and informed patient market is rising in importance and for some regions Health Authority and payers also play significant roles in marketing plans, “Digital, no personal interactions allow for a much greater reach of the increasing number of stakeholders involved in the decision making process around the promotion and prescription,” commented Van den Burg. If digital engagement is a crucial missing ingredient, then a MCM strategy can fix the dilemma. Radhika Raizada cites patient mobilization as a crucial element to enhance physician communication, “The patient space is changing dramatically and patients are leading the conversation with their physicians in many ways.

Clement Chan, Digital Marketing of Janssen echoes the sentiment, “We measure the success of our social media platforms through increased patient and physician engagement.”86% of physicians use the web for clinical information, with 58% overall searching more than once a day. 65% of primary care physicians search more than once a day. 92% of physicians accessed health information from their consultation office with 21% performing the search with a patient in the room. All marketers interviewed agreed that physicians, like modern society, are becoming much more digitally savvy and pharma must rise to meet this inevitable change.

Experts reported in the study that as physicians become more digitally inclined, in turn they are expecting pharma to deliver accurate information more quickly and that can be accessed via a variety of devices, “Pharma companies have been a bit late in adopting these technologies but we are also highly process driven,” says Chandarana. Whatever the factors are, the graphs and statistics available in the report are illustrating that physicians are moving to digital content for disease and drug information. With increasing physician use for of the internet for swift reference information, some pharma companies are already supplying comprehensive and frequently unbranded medical resource content. Merck and Co.’s Univadis for example is a wide ranging medical resource portal. The MCM report also acknowledged that as the use of mobile devices by HCPs continue to grow; pharma needs to address the demand.

Problem Statement:

The current multichannel engagement tools impact the quality of practice of a health care professional?

Hypothesis:

H0: Multichannel engagement tools do not impact the quality of care practice of a health care professional.

H1: Multichannel engagement tools impact the quality of care practice of a health care professional.

Methodology:

The data collected for this study was the primary and secondary sources. the primary source by a survey method providing the constructive questionnaire to individual health care professional containing the open questions and measured thru liker scale method and the secondary source was the pharmaceutical data base about the information and behavior attributes that reflect the quality service given to the patients in community.

The independent variable for this study is the mean of all quality related responses (QSCARE) of a health care professional while the depended variables were the media used to get the information about the diagnostics, management of a disease for the patients including the email, website for the medical information and the webinar attended as the current multichannel engagement tools practicing by pharmaceutical management in Pakistan.

The statistical tool for the analysis of data was the SPSS and the multiple regression model was instituted to get the statistical value for interpretations for the key findings and discussion.

two hundred health care professionals were the sample size for this study and the questionnaire was distributed to collect the response thru measurement of likert scale of a healthcare professional practicing in Pakistan including the government and private institutes, clinics setups etc.

Inclusion Criteria:

The health care professional includes consultants, family physician, male and female of all specialties exist as per the record of Pakistan medical and dental association governing body.

Statistics:

following model equation is used for multiple regression model in SPSS.

$$Y(\text{QSCARE}) = \alpha + \beta(\text{EMAIL}) + \beta(\text{WEBSITE}) + \beta(\text{WEBINAR}) + \epsilon$$

quality of practice (QSCARE) is dependent variable.

email, website and the webinar are independent variable.

Statistics

		Gender	Designation	Specialty	EMAIL	WEBSITE	WEBINAR
N	Valid	200	200	200	200	200	200
	Missing	0	0	0	0	0	0

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	116	58.0	58.0	58.0
	Female	84	42.0	42.0	100.0
Total		200	100.0	100.0	

Designation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Consultant	39	19.5	19.5	19.5

Specialty

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Chest Physician	50	25.0	25.0	25.0
	Child Specialist	50	25.0	25.0	50.0
	Medicine	50	25.0	25.0	75.0
	Family Physician	50	25.0	25.0	100.0
	Total	200	100.0	100.0	
RMO		60	30.0	30.0	49.5
General Practitioner		101	50.5	50.5	100.0
Total		200	100.0	100.0	

WEBSITE					
WEBINAR					
Reliability Statistics		Frequency	Percent	Valid Percent	Cumulative Percent
Cronbach's Alpha	N of Items	10	5.0	5.0	5.0
.827	5	30	15.0	15.0	20.0
Agree		89	44.5	44.5	64.5
				35.5	100.0
				100.0	
Variables Entered/Removed ^b					
Model	Variables Entered	Variables Removed	Method		
1	WEBINAR, WEBSITE, EMAIL		Enter		

a. All requested variables entered.

b. Dependent Variable: QSCARE

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.496 ^a	.246	.235	.72286	1.455

a. Predictors: (Constant), WEBINAR, WEBSITE, EMAIL

b. Dependent Variable: QSCARE

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33.493	3	11.164	21.366	.000 ^a
	Residual	102.414	196	.523		
	Total	135.907	199			

a. Predictors: (Constant), WEBINAR, WEBSITE, EMAIL

b. Dependent Variable: QSCARE

Coefficients^a

Model		Unstandardized Coefficients		Standardized	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.763	.175		10.065	.000		
	EMAIL	-.134	.072	-.129	-1.865	.064	.799	1.252
	WEBSITE	-.486	.083	-.385	-5.885	.000	.898	1.114
	WEBINAR	-.420	.068	-.424	-6.169	.000	.814	1.229

a. Dependent Variable: QSCARE

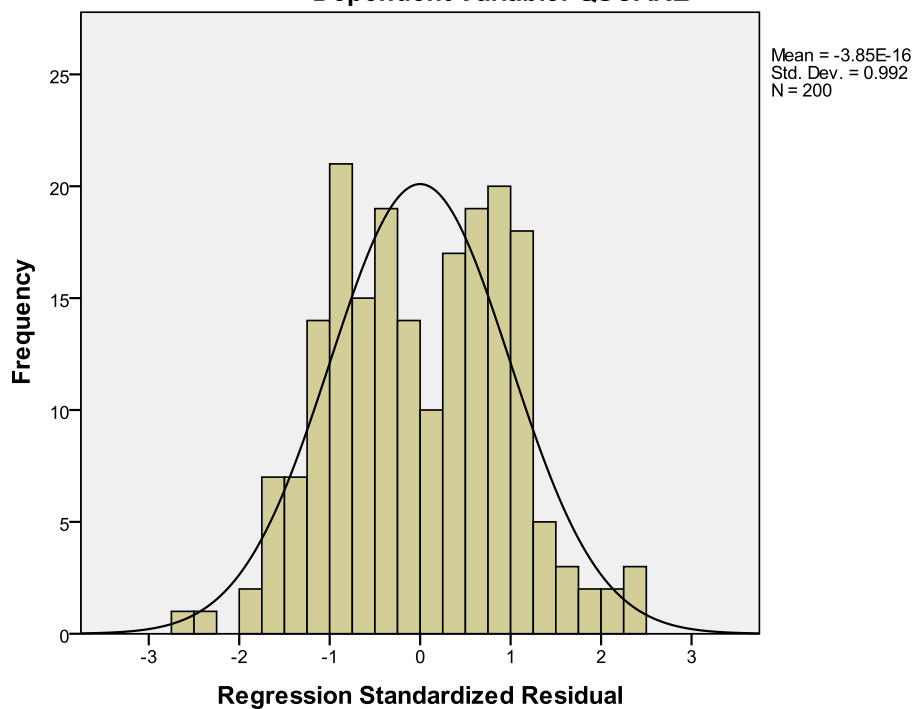
Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	EMAIL	WEBSITE	WEBINAR
1	1	3.262	1.000	.01	.02	.01	.02
	2	.509	2.532	.00	.17	.02	.36
	3	.169	4.390	.00	.60	.54	.12
	4	.060	7.365	.99	.21	.43	.50

a. Dependent Variable: QSCARE

Histogram

Dependent Variable: QSCARE



Key findings and Discussion:

The information giving through the digital media including the current engagements like email, website visiting for the information and the attending the scientific webinar by a health care professional improve the quality of their practice and service for the community patients. based on these assumptions this study was conducted for these digital engagement tools and observe the impact on the quality of practice of a health care professional.

this study was conducted in Karachi, one of the dense populated city of Pakistan through a survey method and the findings shown that 58% of the male respondents and 42% of females respondents among the sample size of 200 health care professional with 25% of each of the following specialty including the chest physician, child specialist, family physician and the medicine were included with 20%,30% and 50% of consultant, resident medical officer and general practitioners respectively.

the response of each category was measured thru liker scale and a large number of participants approximately 40% were strongly agreed that information thru email given to them increase the knowledge and help transforming into the quality of practice for patients while 35% respondents agreed to this medium utilization however the 25% respondents neither agreed nor disagree that email has the impact on the quality of practice.

another medium for information exchange and sharing is the visiting a website and 45% and 44% of the respondents were strongly agreed and agreed respectively that by visiting a medical website to improve the quality of practice however a small percentage approximately 10% of respondent neither agreed nor disagreed that this medium is effective likewise the webinar about disease diagnostics and the management has the impact on the quality of practice 44% of the respondents were agreed that webinar improves the practice 35%

respondents strongly agreed that this engagement tool is effective for them to enhance the knowledge and the practice.

the model is reliable as the table shows that the value is acceptable range the cronbach alfa is 0.0827 for the dependent variable and the number of items were five in the next the items of dependent variable fused to get the mean and apply the regression analysis over the independent variables including the email, website and he webinar subsequent table shown that statistically values in model summary, difference in variance between the quality of service verses the email, website and the webinar is 0.11 shows that model is significant while the analysis of variance(ANOVA) table confirms that higher F values statistics of the independent variables have the explanatory power over the dependent variable and have the strong relationship between them directing that accepting the alternative hypotheses that multichannel engagement tools have the impact on the quality of practice of health care professional.

the several tests for the assumptions like multi collinearity statistics shown in table that among the values of email, website and webinar over the quality of practice the variances among them are not very much with difference and has the correlation among them.

one of the assumption that the un standardized and the standardized values of independent variables over dependent variables are in negative numeric values assuming that quality of practice has extended while there are no response of email, website visiting and the webinar to attend these may account the limitation of the selection of the statistical model and further it must be investigated through the appropriate model in SPSS.

based on the descriptive analysis and the higher values of f statistical the alternative hypotheses may be accepted that multichannel engagement tools have the impact on the quality of practice of a health care professional.

Conclusion:

sharing and exchange the information through digital media in today's world is now demanding and various aspects of sharing the quality informations to actual and potential prospects to gauge them at 360 level, the following study is one of the main idea discuss and statistically prove that quality of a profession particularly the health care sector and more specifically the health care professionals are now having the advantage of using the digital media to making their practice for their patients.

media like email, visiting medical websites or attending the long distance scientific sessions like webinar have the impact of health care professional practice, there are other several

aspects needed to be explored for further extending the utilization of this media for other sector as well.

statistically analyzed the parameters shown that there are impact of such medium for the quality of practice of health care professional therefore allow to retain the alternative hypotheses that the engagement of multichannel have the impact of information related to their quality of diagnostics and the management of a particular disease of patients.

Limitation:

The scope of this study is very wide and due to time constrain the various aspects of the components needed to be covered by novice researchers. The study can further be elaborated and for future prospects it could be ideal opportunity for the researcher to extent the research on various aspect of the topic. there are so many anther components of media engagement tool, serving and engaging the health care professionals with a 360 degree concept can be a part of this study for further investigational analyses, while the statistical data treatment model must highly be considerable for the assumptions of sample taken and to generalize this study.

Reference:

1. ["Understanding Quality Measurement"](http://www.ahrq.gov). *www.ahrq.gov*. Retrieved 2016-11-21.
2. Carroll, Aaron; MD; MS (2012-10-03). ["JAMA Forum — The "Iron Triangle" of Health Care: Access, Cost, and Quality"](#). *news@JAMA*. Retrieved 2016-11-21.
3. Chassin, M. R. (1998). *"The Urgent Need to Improve Health Care Quality: Institute of Medicine National Roundtable on Health Care Quality"*. *JAMA: the Journal of the American Medical Association*. 280 (11): 1000–1005. [doi:10.1001/jama.280.11.1000](https://doi.org/10.1001/jama.280.11.1000).
4. Credit Suisse *Global Investment Returns Yearbook* (2010).
5. Dimson, Elroy; Marsh, Paul; Staunton, Mike; Wilmot, Jonathan 2
6. IMS Health. (2012). *"The Global Use of Medicines: Outlook Through 2016,"* July, Page 3.
7. *"India: Good Endings, Good Beginnings,"* Pharmaceutical Executive, September 2011.
8. Drugs that offer benefits that are differentiated from those offered by other products in the market. mehta et al.
9. Espíndola Volpato, Dalton; Souza, Bárbara Vicente de; Rosa, Luana Gabriela Dalla; Melo, Luíz Henrique; Daudt, Carlos Antonio Stabel; Deboni, Luciane. (2005). "Use of antibiotics without medical prescription," *Brazilian Journal of Infectious Diseases*, Vol. 9 no.4 Salvador, August

10. India's *Potential as Part of a Global Pharmaceutical Value Chain*, Alexander Meyer auf der Heyde, Sriram Shrinivasan, Sebastian Schweitzer, Accenture.
11. Hayward, Rob; Ovanessoff, Armen; Peppes, Athena; Wei, Kuangyi; Nunes, Paul ; Purdy, Mark; Robinson, Matthew; Spelman, Mark; Rossi, Vanessa. (2012). Accenture, January 25, Fast Forward to Growth,
12. "Novo Nordisk to Reach 2500 *Children in India with Free Insulin and Diabetes Care*," Novo Nordisk Press Release, September 7, 2012.
13. "Country Report; Turkey", Steve Kretschmer. May (2011). Pharmaceutical Market Europe,
14. "O'Riordan, Anne; Chen, Kher Tean. (2011). Digital Doctors in China," Channels Reaching Anne O'Riordan, Kher Tean Chen, Andrew Yu, Accenture, July 19, (2011). What it Takes: Launching Successful Products in China's Pharmaceutical Market. Accenture, December 21.
15. A "O'Riordan, Anne; Chen, Kher Tean. Accenture, December 21, (2011). Digital Channels Reaching Doctors in China.