

IMPACT OF DIRECT TO CONSUMER ADVERTISING THROUGH INTERACTIVE INTERNET MEDIA ON WORKING YOUTH

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Abstract

Direct-to-consumer advertising is used by marketers to promote medicines directly to potential customers by using different media like print, broadcast, internet and interactive internet media. United States and New Zealand are the only two countries which have legalised DTCA, but the advent of internet has broken all barriers. Online content cannot be restricted by geographical boundaries. With widespread access of online content there is no limitation on target audience. Advertisement of prescription medicines through internet and social media has made it difficult for FDA to govern and monitor advertisements and online content for drug promotion. It is more so because of the involvement of third party posting online advertisements and promotional contents. Another factor contributing to the growing importance of social media as preferred medium for prescription drug promotion is consumer acceptance and growing internet literacy. This paper analyses the effect of social media promotion of prescription medicine on behaviour of working youth. It studies the adoption of social media by working youth for collecting information on prescription drugs. This study also aims at getting an insight into correlation between demographic factors and attitude and perception for social media based prescription drug advertisement. The study also measures the difference in the positive and negative impact of social media based advertisement of prescription drugs.

Keywords: Direct to consumer advertisement (DTCA), Interactive Internet Media/ Social Media, Prescription Drugs and Youth Behaviour.

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INTRODUCTION

Direct to consumer advertising of prescription drugs is meant to promote prescription drugs directly to patients. Prescription drug advertisement directly to the patients has proved successful in stimulating consumer demand, to an extent that at times, patients request for medications or treatment which may not be required. Patients exposed to advertisement of prescription drugs have an inclination towards discussing the advertisement with their physicians. But the question still lies unanswered whether the physicians are equipped to respond to such requests. Earlier advertisements carrying drug's brand name had to include detailed product insert information. Direct to consumer advertising is commonly used for drugs meant for treating conditions like gastrointestinal disorder (gastric ulcers), fever, smoking,

cough & cold, and allergy. For some of these drugs, both OTC and prescription formulations are promoted directly to consumers. Some of the direct to consumer advertisements encourage patients to discuss the advertised medicine with their physicians. Promotion of prescription drugs directly to consumers, improves the awareness level of patients with for therapeutic options and disease symptoms, thus preparing the patient for consulting their doctor and seeking advice on the authenticity of the information gained from advertisement. This is a departure from the traditional form which targeted mainly physicians and healthcare professionals (push strategy). Relaxation of FDA guidelines in 1997 has resulted in an exponential growth of direct to consumer advertisements of prescription drugs. The growing number of consumers resorting to DTCA for therapeutic options has resulted in a new generation of

more informed participants in health care decision-making. FDA in 1997 released guidelines on consumer centric promotion of prescription drugs. This guideline allowed pharmaceutical manufacturers to include in the advertisement, drug's name and disease that the drug treats, while exempting them from including the additional safety information on product insert. New FDA guidelines for direct to consumer advertising of prescription drugs framed in 1997, allowed the manufacturer to advertise a prescription drug's name and the condition for which it is indicated without a detailed summary of its side effects and other risks. In keeping with FDA's requirements for risk disclosure, prescription drug advertisement targeting patients should carry information related to product and main risks. Also such advertisements are bound to provide leads to other sources of information – corporate website and toll free number. Patients seem to welcome this new trend as these advertisements empower them to participate in their own healthcare decision making. Consumers depend on different sources for seeking information which is governed by factors like – their demography, source availability/ easy access, consultation fees, authenticity of source etc. Physicians no longer enjoy the autonomy of selecting medicines for their patients, because of the constraints placed on their prescribing behaviour by managed healthcare, hence these advertisements affect doctors' prescribing pattern. Although prescription drug advertisement has seen a welcome from consumers, its growing importance raises following concerns- it may add to spending on drugs by consumers, without providing enough benefits to justify that spending, it encourages drug abuse, it could lead patients into new approved drugs whose potential risks are not discovered fully. With a view to address those concerns, FDA has imposed a moratorium on prescription drug advertisement in the first 2 years after drug's approval. The moratorium will address the safety concerns of newly launched drugs, although it also has its negative aspects, as some of the patients who could benefit from

the new drug may not be aware of it. Patients are more likely to indulge in preventive health behaviours if they perceive themselves susceptible to any serious ailment. Direct to consumer advertising is a new trend in the promotion of prescription drugs. Some of the medical conditions are already heavily advertised (Fever, cough and cold, allergy, acidity & nutritional supplement and smoking). The number of prescription drugs with potential for direct to consumer promotion is much more compared to the number that is advertised. Direct to consumer advertising indicates advertisement of medicines through media which is easily accessed by public. This is important because these advertisements are targeted directly to the consumers. Advertisement of prescription drugs targeted to consumers of different kinds based on purpose, target audience and drug type. Help-seeking advertisement informs patients about disease but does not promote any product. Reminder advertisements carry product name and information related to strength, dosage and price. Product claim advertisement includes brand name, its indication and safety claims. Companies use a combination of media for promoting prescription drugs to consumers. Although the choice of medium depends on different factors and stages of product life cycle, more commonly used media are television, magazine, newspaper and internet. But looking at the immense potential of Indian working youth with a growing interest in internet and social media, companies have started to recognize the emerging role of internet in generating awareness for a new medicine because of its viral effect. Online DTCA has huge potential and broader reach because of its global presence. Internet has evolved from read-only "Web 1.0" to interactive media using "Web 2.0" technology. Interactive internet media has transformed the advertising industry. Internet and social media based advertisements can reach consumers across borders because of its potential to transcend geopolitical borders. Although use of social media for prescription drug advertisement is widely accepted by

consumers, question remains: who is the actually benefactor, consumers or industry? Compared to other media social media/ web 2.0 interactive media is more successful in affecting consumer behaviour. Advertisers claim that these advertisements educate and empower patients and decision makers, help in early diagnosis and needed care of chronic diseases, improve patient compliance to doctor's prescription and provide autonomy to consumers in their own health care management.

Internet and DTCA

Traditionally prescription drug advertisements were targeted to doctors. This traditional paternalistic model has been disrupted on account of the availability of health-related information, on the internet. Patients depend on these secondary sources for information on disease and therapeutic options. Internet evolved as an additional information source for consumers and practitioners searching for health-related material in 1997. Internet empowers and makes patients confident enough to discuss their ailments with their doctor, without feeling uncomfortable. Internet gives user anonymity which enables people to seek advice on embarrassing issues. Access to online forums, on-line doctors and support groups facilitate communication among those with similar interests. There is a shift in the patient - physician role; patients have become more proactive in learning about healthcare issues. Though internet has become an important medium for prescription drug advertisement, it is unregulated, which could mean that the information available can be unreliable if not obtained from authentic source. Another concern is the digital divide in which well-educated and affluent members of society are more likely to use the internet for health purpose than their less-educated counterparts (Korp, 2005). Many of the prescription drug advertisements on the interactive internet media is not provided through the support, sponsorship, or promotion of a pharmaceutical company and, therefore, is beyond FDA's jurisdiction. Rescinding governance on direct to consumer advertisements would not help in curbing

consumer's exposure to drug information. Regulation of prescription drug advertisements must move beyond interests of stakeholders to an evidence-based examination of impacts. DTCA is unlikely to disappear; consequently, the central issues are how to create and how to regulate the communications most effectively (Lyles, A., 2002).

Interactive internet media (social media) and DTCA

The concept of new and emerging forms of digital or "e-DTCA" which are either marketed online via websites or through the use of social media technology is a growing concern in global health which has yet to be adequately studied. These forms of technology, pose new challenges to policy makers, patient safety advocates and other stakeholders in protecting population based health and in combating rising healthcare costs (Mackey & Liang, 2012). Digital promotion of prescription drugs has evolved from one-way communication or "Web 1.0" to a new interactive technology called Web 2.0. This new platform makes use of interactive web programs like - social media (Facebook, Twitter, YouTube), google plus, blogs, podcast, RSS feeds. Although Web 2.0 platforms are highly influential marketing platforms for promotion of prescription drugs and hence cannot be ignored, it carries great risks.

Social Media promotion of prescription drugs to working youth

Unlike static websites, interactive internet media are more dynamic because they are controlled by many instead of a few. Youth's activity on social media is changing healthcare. At a time when regulatory constraints are placing access to these groups at a premium, the communities where they discuss diseases and treatments are becoming an increasingly attractive venue for the industry (A deloitte research study, 2010). Emergence of Web 2.0 social media has brought about a renaissance in communication and social interaction. Social media is a collaborative media platform for sharing and exchange of information on a large scale. The

evolution of social media application by youth shows a paradigm shift in social media consumption from entertainment to information seeking and communication. Today youth are multitasking- consuming, producing, sharing and remixing media. Youth spend more time online than any other age group (Ewing et al 2009). Social media unfolds manifold benefits for youth. Some of the ways in which it contributes towards youth empowerment and upliftment are - media literacy, formal / informal education, creativity, individual identity and self-expression, belongingness, collective identity, developing social networks, and community membership.

Literature review

A review of the existing literature shows that direct to consumer advertising of pharmaceuticals to consumers follows changing social and economic trends which recognize patient autonomy in healthcare management. DTCA is also a reaction of the pharmaceutical industry to more restrictive prescription drug benefits and to the uncertain effectiveness of relying only on traditional marketing activities such as medical journal advertisements and detailing individual physicians (Lyles, A., 2002). Advertising works. It always has. Pharmaceutical companies have successfully promoted their products to doctors for decades. They are now bringing that to the consumer marketplace. This trend is occurring at a time when pharmaceutical companies in general are shifting focus and resources to marketing from research and development. The growth of DTC advertising is altering the way prescription drugs are perceived. Direct to consumer advertisements send a strong signal that prescription drugs are like any consumer product — fmcg, automobiles, and electronics. Prescription drug advertisements like all other advertisements primarily aim to create name and brand recognition, a context for the use of a product and to boost sales and profits. Only secondarily do prescription drug ads aim to inform consumers about diseases or treatment options. To their credit, the ads have apparently raised awareness of many medical

conditions (N I H C M Foundation Research Brief, 2000). DTCA encourages more patients to seek medical treatment. Higher DTCA expenditures are associated with increased doctor visits, and this relationship is stronger after the 1997 FDA clarification (Iizuka & Jin, 2005). The post-marketing period for a new drug requires what has been termed pharmacovigilance, i.e., active identification and follow-up of unexpected consequences as experience is gained with the new prescription drug product. Experimental research, employing sound methodologies and examining actual consumer decisions and their health consequences, is needed to guide effective communications on drug risk and benefit in different media. Although the available evidence suggests that advertisements containing adequate risk information are more likely to motivate consumers to speak with their doctor, a substantial portion of consumers still believe the risk information in DTCA is inadequate (Lyles, A., 2002). Surveys indicate that while consumers bring a healthy scepticism to the claims made in prescription drug ads, they believe the information is approved by the government. That likely raises the credibility of prescription drug advertising over ads for other products (N I H C M Foundation Research Brief, 2000). The mass media is getting increasingly powerful in society, addressing the public with words and images at an extraordinary rate. Media is, of course, a business, and will market almost anything that will sell. The challenge for health promoters is establishing their credibility and reaching broad audiences (Mechanic, D. 2005). Pharmaceutical companies have shifted to online DTC advertisement of prescription drugs through interactive internet platforms like facebook, twitter, google plus and linked. Social networking provides a great opportunity for the pharmaceutical industry to come near to their customer and reach out to new and broader customer base. The enormous growth in the social networking will be replicated in the developing countries like India after an extensive coverage in the developed markets. The social networking

could be a very strong and effective medium for the pharma industry to communicate their values and strategies to their customers (Chatterjee, S., 2012). Pharmaceutical marketing has rapidly evolved over the past century and has now entered the digital revolution. This is exemplified by the rise of direct-to-consumer-advertising (DTCA), which has traditionally been only allowed in the United States and New Zealand in developed countries, but is now expanding in reach to other jurisdictions. Enabling the “globalization” of pharmaceutical DTCA is Internet-related technologies that are not limited to geographical borders and are highly unregulated. Pharmaceutical advertising has undergone a rapid evolution due to globalization, emerging, health-related technologies, changing patient-provider relationships, and the growing importance and expanding “business” of global health (Mackey and Liang (2012). Social media as a new tool has grabbed the attention of all. Also in terms of promotional effectiveness and efficiency of select campaigns to specific target groups and specially the youths, the social media is the undisputed choice. Truly social media is being selected as the most preferred choice because of its uniqueness in comparison to traditional media on account of richer engagement opportunities where brands easily communicate providing a platform for audience to talk, express and exchange opinions both inside and outside. The most interesting part of social media is that it’s an on-going conversation among the company and its target audience. New social media capabilities are being used by the account managers and in some instances companies have specifically hired social media managers undertaking the promotion of the company’s stated objectives on the social media platforms. Facebook, twitter, linkedin etc. stand testimony to the fact of the growing engagement being used by companies to have their social media presence and getting connected with the target consumers thereby becoming part of their active lifestyle. It can be said that social media is allowing companies to have relationship with

tomorrow’s potential customers also. It can be said that social media acts as a direct, interactive and engaging medium (Bhagat and Dutta, 2012). According to Lau, Fernandez-Luque. and Armayones. M. (2012), Due to the salient nature of social media and the social influences surrounding its use, consumers and patients are likely to be subjected to greater risks when unsafe content is consumed. The potential harm associated with the use of poor quality health information on the Internet has been a concern since the rise of the Internet. However, this does not mean that we should not engage in the use of new technologies to improve the way we communicate and learn about health. What is needed is a better understanding of how consumers digest online content, and how potential harm operates and disseminates. DTC advertising through social media benefits patients and healthcare providers alike. Physicians today are likely to receive drug information from a variety of sources and more often than not these sources are accessed via the Internet. Devices such as the iPhone—and soon the iPad—will make it even more convenient for physicians to receive online content (Mack, J., 2010). Companies across product categories are working to learn the nuances of social media as it continues to grow in popularity and wide spread adoption. Pharmaceutical companies are no different, except that they must also adapt government regulation and industry standards to the new medium, making the topic important for pharmaceutical companies, consumers, and policy makers. Delayed guidance has not stopped many of the world’s largest pharmaceutical companies from establishing a presence on Facebook. This is an important stepping stone for understanding the potential benefits and pitfalls associated with Facebook both for pharmaceutical companies and health-related companies. These pharmaceutical companies have been cautious in the use of social media concentrating on science or social responsibility while keeping away from user-generated content and specific product information. These companies do not currently have Facebook pages relating to any specific

drug therapies. This is likely to change if the FDA guidance provides companies the assurance that such an activity is not a violation (Myers, D. S. 2012). Pharmaceuticals market is highly regulated, and it can be stated that prescription drugs have a status of substances in controlled circulation. Promotional activities are also under strict legislation, further burdened with ethical consideration and public scrutiny. Internet as liberal and hard to control medium brings entirely new sets of solutions and/or problems to pharmaceutical marketers. Marketers in pharmaceutical industry have all the instruments of promotional mix and all their combinations at their disposal, so as to convey the intended message to the target audience. The nature of the product, legal regulations and ethical principles create an environment in which the marketers need above average creativity and care of the target audience, message content and choice of appropriate communication channels for the message to produce the desired effect (Pantelic, D., 2009). DTC advertising for prescription drugs will almost certainly expand in the near future. It will also enter cyberspace. Health care web sites are already supported in part by prescription drugs advertising. The benefits and potential troubling side effects of mass media prescription drug advertising are just beginning to be probed and understood (N I H C M Foundation Research Brief, 2000). Yet, pharmaceutical marketing can have adverse health and economic outcomes, especially if left unregulated and allowed to proliferate and cross geopolitical borders in the uncontrolled digital environment. This DTCA digital “spillover” into markets that prohibit it can have adverse impact on health outcomes and health-related spending. Emerging markets may represent the next logical step for digital DTCA proliferation, given their untapped market potential and explosive growth, but they are especially at risk given their enormous market potential, rapid growth in health spending, and ambiguous regulatory treatment of digital DTCA. Further research and global health policy reform is necessary to

address this “emerging” global health issue (Mackey and Liang (2012). We also find that the market-expanding effect is similar across demographic groups (Iizuka & Jin, 2005).

Research objectives

1. To study the effect of demographic factors on working youth’s perception of social media based prescription drug advertisement
2. To study the attitude of working youth for social media advertisement of prescription drugs.
3. To study positive and negative impact of social media based direct to consumer advertisement on youth behaviour

Research Hypothesis

To study the above objectives following hypotheses are designed.

H₀₁: There is no association between perception of social media advertisement of prescription drugs and demographic factors.

H₁₁: There is association between perception of social media advertisement of prescription drugs and demographic factors.

H₀₂: There is no association between attitude of youth for social media advertisement of prescription drugs and demographic factors.

H₂₂: There is association between attitude of youth for social media advertisement of prescription drugs and demographic factors

H₀₃: There is no significant difference between positive and negative impact of social media advertisement of prescription drugs.

H₃₃: There is significant difference between positive and negative impact of social media advertisement of prescription drugs.

Methodology

To study perception, attitude and impact of social media on prescription drug advertisement information is collected from 120 respondents who are social media users. The study analyses adoption of social media by working youth and effect of social media based direct to consumer advertising on working youth behaviour. For this study judgment sampling is used. Information is collected only from respondents who have access to the internet and are active users of interactive internet media. Information is

collected through a closed ended structured questionnaire by survey method from 120 respondents. Respondents consisted of working youths both medical and non medical in the age group of 18 to 35 years. The information is first classified then analysed using arithmetic mean and standard deviation and then hypothesis are tested using statistical tools such as chi-square, ANOVA, pair t-test. Information obtained from respondents is for two demographic factors gender and qualification. There are four parameters of study. These are ‘Perception’, ‘Attitude’, ‘Positive impact’ and ‘Negative impact’.

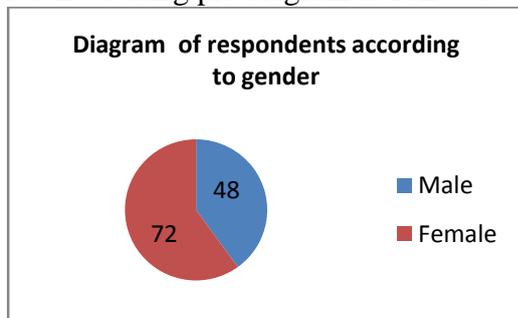
Demographic factors:

Gender: To study the impact of social media on PDA, information is collected about gender of respondents. Classified information is given in the following table.

Gender	No. of respondents	Percent
Male	48	40.0
Female	72	60.0
Total	120	100.0

Table 1

Above table indicates that out of total 120 respondents, 48 are male respondents and 72 are female respondents. Above information is represented using pie diagram as follows.

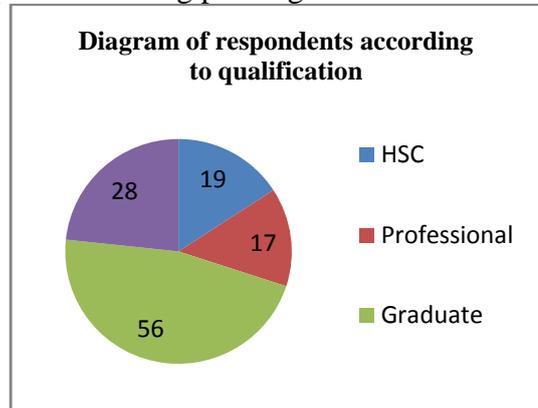


Qualification: Information about qualification is collected and classified into four different groups. Classified information is presented in the following table.

Qualification	No. of respondents	Percent
HSC	19	15.8
Professional	17	14.2
Graduate	56	46.7
Post graduate	28	23.3
Total	120	100.0

Table 2

Above table indicates that out of total 120 respondents, 19 respondents belong to HSC category whereas 17 are from professional category. Maximum (56) respondents are graduate and remaining 28 respondents are post graduate. Above information is represented using pie diagram as follows.



Parameters of Study:

1. Perception about PDA (prescription drug advertisement): To study perception, information is collected through 11 different questions. Response to these questions is rated appropriately. Arithmetic mean score calculated is 73.62 and standard deviation is 13.05. All 120 respondents are classified into three levels of perception. If score of respondent is less than 60.57 then they are classified into ‘Low perception level’, respondents with score from 60.57 to 86.67 are classified into ‘Medium perception level’ and respondents with score more than 86.67 are classified into ‘High perception level’. Table of classification is presented as follows.

Perception level	No. of respondents	Percent
Low	16	13.3
Medium	85	70.8
High	19	15.8
Total	120	100.0

Table 3

2. Attitude about PDA (prescription drug advertisement): For study of attitude, information is collected through 6 different questions. Response to these questions is rated appropriately. Arithmetic mean score calculated is 68.69 and standard deviation is 17.11. All 120 respondents are classified into three levels of attitude. If score of respondent

is less than 51.58 then they are classified into ‘Low attitude level’, respondents of score from 51.58 to 85.81 are classified into ‘Medium attitude level’ and respondent of score more than 85.81 are classified into ‘High attitude level’. Table of classification is presented as follows.

Attitude level	No. of respondents	Percent
Low	12	10.0
Medium	85	70.8
High	23	19.2
Total	120	100.0

Table 4

3. **Positive impact of PDA (prescription drug advertisement):** To study positive impact, information is collected through 12 different questions. Response to these questions is rated appropriately. Arithmetic mean score calculated as 74.21 and standard deviation is 12.22. All 120 respondents are classified into three levels of positive impact. If score of respondent is less than 61.99 then they are classified into ‘Low positive impact level’, respondents of score from 61.99 to 86.43 are classified into ‘Medium positive impact level’ and respondent of score more than 86.43 are classified into ‘High positive impact level’. Table of classification is presented as follows.

Positive impact	No. of respondents	Percent
Low	15	12.5
Medium	87	72.5
High	18	15.0
Total	120	100.0

1. Association between gender of respondents and levels of parameters.

S. No	Parameter	Chi-square calculated value	d.f.	Chi-square table value (5% I.o.s.)	Result of test
1	Perception	1.228	2	5.99	Accepted
2	Attitude	1.540	2	5.99	Accepted
3	Positive impact	1.164	2	5.99	Accepted
4	Negative impact	11.748	2	5.99	Rejected

Table 7

If chi-square calculated value is less than table value then test is accepted and null hypothesis is accepted. Above table indicates that chi-square test is accepted for the parameters perception, attitude and positive impact. This indicates that there is no association between gender and perception, attitude and positive impact of social media prescription drug advertisement (PDA). Chi-square test

Low	20	16.7
Medium	89	74.2
High	11	9.1
Total	120	100.0

Table 5

4. **Negative impact of PDA (prescription drug advertisement):** For study of negative impact, information is collected through 13 different questions. Response to these questions is rated appropriately. Arithmetic mean score calculated as 65.77 and standard deviation is 16.97. All 120 respondents are classified into three levels of negative impact. If score of respondent is less than 48.80 then they are classified into ‘Low negative impact level’, respondents of score from 48.80 to 82.74 are classified into ‘Medium negative impact level’ and respondent of score more than 82.74 are classified into ‘High negative impact level’. Table of classification is presented as follows.

Negative impact	No. of respondents	Percent
Low	15	12.5
Medium	87	72.5
High	18	15.0
Total	120	100.0

Table 6

Testing of Hypothesis:

To study association between demographic factors and levels of parameters chi-square test is applied. Results of test are as follows.

is rejected for gender and negative impact. This indicates that there is association between negative impact and gender.

2. Association between qualification and levels of parameters is also studied using chi-square test. Results of test are as follows.

S. No	Parameter	Chi-square calculated value	d. f.	Chi-square tablevalue (5% l.o.s.)	Result of test
1	Perception	11.043	6	12.59	Accepted
2	Attitude	8.711	6	12.59	Accepted
3	Positive impact	21.846	6	12.59	Rejected
4	Negative impact	10.167	6	12.59	Accepted

Table 8

Above table indicates that there is no association between qualification of respondents and parameters perception, attitude and negative impact of social media PDA. There is association between qualification and positive impact of social media PDA.

3. To compare positive and negative impact of social media PDA arithmetic mean and standard deviations. Data is calculated and presented in the following table.

Paired Samples Statistics				
Parameter	Mean	N	Std. Deviation	Std. Error Mean
Positive Impact score	74.20	120	12.21	1.11
Negative Impact score	65.77	120	16.97	1.54

Table 9

To verify whether difference between mean score of positive impact and negative impact is significant, t-test is applied.

Paired Samples Test					
Parameter	Paired Differences			t-test	p-value
	Diff of Mean	Std. Deviation	Std. Error Mean		
Positive Impact score and Negative Impact score	8.43	15.712	1.43	5.88	0.000

Table 10

In above table since p-value is less than 0.05 the difference is significant. Conclusion is positive impact is more than negative impact of social media PDA.

4. To study difference in mean scores of attitude of respondents of different qualification ANOVA is obtained and F-test is applied. Results of the test are as follows.

ANOVA Attitude score					
	Sum of Squares	Df	Mean Square	F	p-value
Between Groups	3109.765	3	1036.588	3.788	.012
Within Groups	31741.253	116	273.631		
Total	34851.019	119			

Table 11

Above table indicates that p-value is less than 0.05, therefore there is significant difference in attitude of respondents of different qualification.

Findings and conclusion:

1. Perception about social media PDA: Perception score of all 120 respondents is 73.62. Perception score for male respondents is 72.84 and for female is 74.14. There is no significant difference in perception of male and female respondents about social media PDA.
2. Perception score of HSC respondents is 73.49, for graduates is 72.24, post graduates is 72.59 and for professional respondents is 79.99. There is no significant difference in perception of different qualifications of respondents about social media PDA.
3. Attitude about social media PDA: Attitude score of all 120 respondents is 68.69. Attitude score for male respondents is 66.11 and for female is 70.42. There is no significant difference in attitude of male and female respondents about social media PDA.
4. Attitude score is HSC respondents is 60.35, for graduates is 66.96, post graduates is 72.85 and for professional respondents is 75.86. From ANOVA and F-test finding there is significant difference in mean scores of attitude of respondents of different qualification about social media PDA. Attitude of professional respondents is very high and HSC respondents is very low. It is also concluded that as qualification increases attitude towards social media PDA also increases.
5. Mean score of positive impact is 74.20 which is significantly more than mean score of negative impact which is 65.77.

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