

Role of Infographics in Healthcare

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“You have read a newspaper or blog, flipped through a magazine, or used social media recently; you have likely come across infographics – those self – contained pictorials that tell you about the gist of the story or concept at a glance”.^[1]

The language of information design has had common characteristics throughout history, from prehistoric periods through the medieval period until the present day, in order to facilitate communication within the development process of humankind. While cave drawings used information design unconsciously, modern designers consciously incorporate the principles in the design process. They have made efforts to facilitate the progress of humanity. Infographics are required to be unique and more attractive. “An infographic is defined as a visualization of data or ideas that tries to convey complex information to an audience in a manner than can be quickly consumed and easily understood.”^[1]

Ocampo describes infographics as visual representations of information, data, or knowledge. The medium is an important tool in teaching, business, giving inspiration, and presenting information. It is one of the most powerful ways to communicate with complex data.^[2]

As infographics have an important role in informing patients, in terms of procedures and pathological conditions, it is important to focus on the important facts in isolation from other information, and unnecessary or distracting images should be removed from the design.

Infographics are information graphics that visually convey information and data accumulations. Infographics, which are referred to as methods of making information by visualizing the information, reveal the causal relationship in the informing process.^[3] While preparing information design material, the overall aim is to transfer intensive and complex information to the target group easily by reflecting the contents of the subject.

The objective is that viewers will easily and quickly understand, learn, and grasp the design created by two

different elements, such as information and graphs. On the other hand, the reflected information needs to be remarkable, esthetic, engaging, and appealing. Rajamanickam expresses that “Infographics have wide ranging applications beyond news dissemination, in several other domains such as, scientific visualization, product design, education, information technology, business communication and entertainment.”^[4]

The reason why we can perceive images faster than writing is how the brain gets the information. The brain evaluates all of the information in the form of pictures, but treats the text in a line.^[1] Consequently, due to infographics, the process of communicating information becomes easier and more efficient in infographics; assessing the target group and determining the desired behavior are important factors. The correct communication infrastructural elements to be created are responsible for the infographic items.

Infographics are intended to communicate a message, to present large amounts of data or information in a manner that is compact and easy to comprehend, to analyze data in order to discover cause–effect relationships, and to periodically monitor the route of certain parameters. Infographics should be simple, clean, concise, and clear, ensuring that the information being conveyed is well organized. Visual simplicity ensures that the graphic will be easy for readers to comprehend.^[5]

Infographics are created for different purposes. Regardless of the purpose of the infographic, various factors must be considered. First, the theme, story, or message should be clear. It is important that the purpose of infographic and the subject to be highlighted are considered before the design process commences. Second, it is important to consider the audience, by making it visually appealing,

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focusing on size, simplicity, effective use of data, and the overall impact.^[6]

The scope of the information should be limited, and lines should be drawn accordingly. The attention span of the average user is increasingly short. Therefore, the question should be designed carefully, and it should be answered with the most effective method available. In that way, the visualization created will be more effective and imaginative.^[5]

Infographics are graphic design products that tell a complex story or explain a large amount of data in a simple, visual way. Nonetheless, not everyone who attempts to create an infographic is successful in creating an effective design, but when they are done well, they can help people to “get it” more rapidly.^[7]

In addition, health information exchanges allow clinicians and patients to accurately and safely share private health information. The aggregators provide a myriad of benefits, including the biggest feat of all – improving health outcomes.^[8]

Creating impactful infographics is the educational experience for patients. Infographics are powerful digital tools that enable patients to have the required knowledge to understand information on specific diseases, procedures and trending health-care topics, which are created enabling the patient to have the knowledge to understand are powerful digital tools provide numerous insights into specific diseases, procedures, and hot health-care topics. These infographics are intended to translate complex health-care information into simplified graphical snapshots that will leave you with a better understanding of how a disease can occur, be treated, and possibly even prevented.^[9]

Using visual aids such as infographics can help educate patients, their families, and others who are seeking information on cancer.^[7] To ensure the integrity of graphics and text in the created informative designs, the design must maintain close contact with the doctors. Mutual interaction is the key to successful illustrations that reveal aspects that words are unable to express in a single frame.

Infographics are visual presentations of information that use the elements of design to display content. Infographics express complex messages to viewers in a way that enhances their comprehension. Images are often an extension of the content of a written article, although infographics convey a self-contained message or principle. Numerous opinions have been provided about the problems with infographics. All infographics start to resemble each other as more are distributed. Consequently, graphics should have unique aspects that enable them to differentiate them from the rest. Valuable space should not be wasted in providing everyday or mainstream information.^[10]

Infographics can make information more appealing, demonstrating valuable ideas, as they are attention-grabbing, easier to understand, reduce boredom, awaken interest, accessible, more persuasive, memorable, and can easily relay information.^[2]

Infographics should be innovative and should be designed to transmit information to patients. However, it is important that they do not provide too much information. For example, if the infographic is predominantly text based, it will lose its appeal.^[11]

Illustrations should be used when information can be transformed into visual format, thus increasing the impact.^[11] Poorly designed graphics should not be used as the images should attract people to take a closer look at the infographic and consequently start reading the text.^[11]

According to Landa, “If typography is readable and legible, then content should be clearly understood. Essentially, ensuring readability means text is easy to read, thereby making reading enjoyable (and frustration-free) as well as interesting”.^[12]

As previously mentioned, font selection is an important point that should be addressed. The selected font can be difficult to detect if it is too wide or too narrow. Elaborate fonts make reading difficult and can be distracting for patients, particularly the elderly. A large and legible font should be used for patients with eye diseases.

Color is a remarkable communication tool that plays an important role in design. Colors are the elements that enable a design to stand out. “The subtle and sparing use of colour can elevate a design and can apply emphasis just where it is needed to increase the effectiveness of a piece of communication.”^[13]

Choosing colors that enhance information is an important aspect of graphic design. Color makes the information provided more legible and determines the visual hierarchy of information [Figure 1].^[14] Choosing the right colors is important. Contrast is a key factor, as the background should blend well with the illustrations.^[5] The correct color should be used for the transferred subject. For example, if the heart symbol is used for a cardiology department, the color should be red. The color reflects the item and makes it easier to memorize.

It was revealed that informational graphics have a more powerful effect they emphasize the relationship between two disciplines such as graphic design and health and can inform the patients within formative. The infographics are necessary for the patients and it is important that they clearly formed enabling methods of disease. Infographics can facilitate the process of patients understanding the causes or risks related to a disease or condition. It makes it easier to detect where the disease is spawning. Simple but perceptual images should be used when presenting information on diseases.

Infographics are important and necessary for patients and the information graphics should be designed based on a specific goal.

Diabetes Think Tank

Patient Experience

It is estimated that 95% of diabetes management is self-management.¹

Evaluating the experience of care people with diabetes receive could help to highlight some of the barriers to effective self-management.

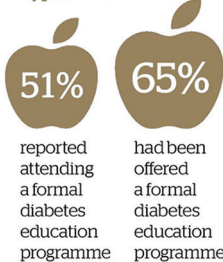
The Patient Experience Survey (PEDS)² published the results of its pilot survey in June 2014. It provides useful insights into how people feel they are able to manage their diabetes.

This infographic explores some of the key findings from the Survey and insights into the efficacy of self-management from the National Diabetes Audit.

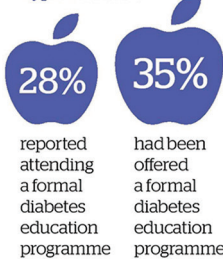
Patient Experience of Diabetes Survey²

Education

Of the respondents with Type 1 diabetes:



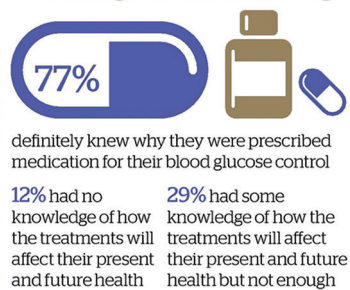
Of the respondents with Type 2 diabetes:



Care planning



Knowledge & understanding



Survey Respondees



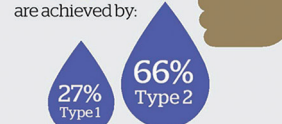
Insights into self-management

Glucose, blood pressure and cholesterol control are essential in trying to avoid serious complications.

However rates of achievement of NICE recommended target ranges for these checks remain relatively low and vary significantly across the country according to the National Diabetes Audit 2011-12.⁴

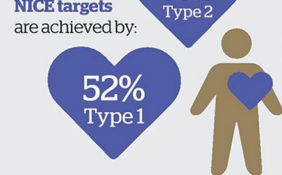
HbA1c

NICE targets are achieved by:



Blood pressure

NICE targets are achieved by:



Cholesterol

NICE targets are achieved by:



Diabetes Think Tank is calling for:

- 1 The Think Tank agreed to work in partnership to help secure funding for a national roll out of the PEDS survey
- 2 The Think Tank supported the use of financial levers, for example Commissioning for Quality and Innovation (CQUIN) schemes to ensure that PEDS will have a high level of coverage
- 3 The Think Tank supported an audit of the PEDS survey's first year results in order to help shine a light on areas where the experience of diabetes care can be improved, including education

The Diabetes Think Tank has been meeting in Westminster since 2006. It brings together policy makers, patient group representatives and healthcare professionals from across the diabetes patient pathway and provides them with a platform to engage in an open discussion of current issues affecting care for people with diabetes.

¹ Diabetes UK, Improving supported self-management for people with diabetes, November 2009. ² National Diabetes Audit 2013-2014, Patient Experience of Diabetes Services Survey Pilot, June 2014. ³ National Diabetes Audit 2011-2012, Report 1: Care Processes and Treatment Targets, 2013.

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Figure 1: Representative image of diabetes infographic. Think Tank Infographic shows patient experience of diabetes survey.

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Conflicts of interest

There are no conflicts of interest.

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