**Research / Evaluation Submission**

*The aim of research / evaluation submissions sessions at conference is to give the opportunity to share research and or evaluation results of social marketing policy, intervention programmes or pilot studies.*

*There is a 1000-word limit on abstracts (inclusive of figures, tables, etc.). PLUS one page of references if required.*

*All applications will be peer reviewed and applicants may be asked to provide additional information about the proposed session if the original application is not clear.*

|  |
| --- |
| **Research / Evaluation submission****Title of the submission Co-creation with consumers: a new approach of connected health promotion****Conference track: 5**. Using citizen focused design thinking, participative design and co-creation) |

**Abstract** (maximum 1000 words)

BACKGROUND

The negative consequences of the global obesity epidemic are now well known (WHO 2016). In response, governments have sought for decades to inform the public about the benefits of a healthy and balanced diet. These nutritional recommendations of the "Five a Day" type have unfortunately not yet allowed a significant and lasting change in eating behaviours (Blanc et al., 2017). More recently, public health programs have sought to improve diet and physical fitness (the two major causes of obesity and overweight) of targeted populations through connected devices.

The technological solutions tested by researchers in the medical field are built by experts and prove to be inefficient in the medium / long term. Nothing is known about the ability of co-creation approaches to enhance the effectiveness of these devices

We are trying to understand how to design a weight loss device connected with consumers so that to improve its efficiency.

To identify the factors that make it possible to improve the efficiency of connected health devices, our research is set in the context of Social Marketing and Transformative Service Research (TSR). In line with the Transformative consumer research (Mick et al., 2012), the TSR focuses on the emergence of new services to improve the lives of individuals (Anderson et al., 2013). Social Marketing has long been aware of the importance to embed the targeted communities in the design of social interventions.

METHOD

We considered individuals as experts about their motivations and barriers to eating healthier foods and the potential help of connected devices.

We conducted qualitative research in the Paris region (France) with 4 focus groups to explore the motivations and barriers that reinforce or threaten the effectiveness of a digital device for a healthier diet. During our focus groups, we used an elicitation approach (Mattelmäki, 2008) to co-explore which device and design could best help participants lose weight in the long term, by viewing them as collaborative actors. We also studied their motivations, their past experiences with diet, and their expectations for four digital devices.

The total sample consists of twenty-seven participants, having tried to lose weight in the last five years. The distribution of participants in the four focus groups ensures the representation of important criteria in relation to the results of previous research, i.e. gender, social level and familiarity with connected devices.

All group interviews were recorded and transcribed. A thematic analysis was then conducted by two researchers and under NVivo. The analysis was based on the evaluation elements of the devices presented, and elements of co-construction of an "ideal device".

RESULTS/ FINDINGS

Our analyses suggest the value of Self-determination Theory (Ryan et al., 2008) in analysing consumer motivations for connected health devices.

The evaluation of the existing devices by the consumer allowed to feed a collective reflection to co-construct an ideal device. The table below summarizes the different dimensions of the ideal application described by consumers, while relating them to the satisfaction factors identified by Ryan (2008). We presented them some various examples of connected devices but clearly they favoured an app when searching for “the” ideal device. The main given reason was that it lets them feel free to use it at their own pace.

|  |  |  |
| --- | --- | --- |
| **Dimensions of co-designed device** | **Verbatim**  | **Effect on satisfaction of …****(Ryan 2008)** |
| Application | *“(An app) allows you to see your progress, to be autonomous”* | Autonomy |
| Easy to use | *“fairly easy to read right away”* | Competence |
| Guarantee of the use of data | *“secure”* |  |
| Various programs for various profiles | *“You could personalize (…) a sleep option (…) a recipe option”* | Competence |
| Access to knowledge (tutorials, etc.) | *“you can … watch a video on the metro that gives you advice”* | Autonomy |
| Access to simulation or score cards | *“recover data to perform better (…) like a score”* | Autonomy |
| Program and data shared with trusted recipients | *“ when you share …, you always take inspiration from the experiences of others”* | Relatedness |
| Allowing face-to-face relationships (appointment for sport, etc.) | *“having an option … for those who’d like to run together”* | Relatedness |

Table 1: dimensions of the ideal application

DISCUSSION

Previous research showed that face-to-face coaching is clearly the most efficient tool to help people to engage in long tem behavioural change when promoting a healthier diet. Nevertheless it is a very expensive tool. On the contrary, connected devices –and specially apps – are less efficient on the long term but at a very low cost.

Unfortunately, most apps are launched by firms without taking vulnerable communities sufficiently into account, even though they are the most affected by obesity and overweight. Our participants insisted on some specific barriers, including the cost of subscription and the necessity to have a recent smartphone to use the applications and their updates. Moreover, apps are often aimed at quantifying eating behaviours (such as calories counting) whereas calorie counting is perceived as much as a control tool as a help by our participants. They told us a major condition to engage in a diet program through a connected device would be the feeling that the app will nudge, not judge.

Indeed, co-designing an app with the targeted communities could be a way to gain efficiency and to really engage them, in line with Dietrich et al (2017).

CONCLUSIONS

We confirm the value of the SDT framework to understand consumer motivations for weight loss. They want to strengthen their autonomy and skills and reject external control. They aspire to a relationship of support and encouragement.

We find that less educated participants with less familiarity with information technology are more wary of the risks associated with digital devices. French consumers are vigilant about the use that can be made of their personal data and wish to obtain guarantees on this aspect.

Methodologically, the playful approach we used with supports such as post-it, paperboards, etc. was clearly focused on the collective construction of functionalities for an "ideal" connected object and favoured the pooling of "insights", with less efficiency, however, for the less educated.

**References** (maximum 1 page)

Anderson, Laurel, Amy L. Ostrom, Canan Corus, Raymond P. Fisk, Andrew S. Gallan, Mario Giraldo, Martin Mende, Mark Mulder, Steven W. Rayburn, et Mark S. Rosenbaum (2013). Transformative service research: An agenda for the future ». *Journal of Business Research*, 66 (8): 1203-1210.

Blanc N., Courbet D., Déplaude M.O., Droulers O, Garde A., Girandola F., Gurviez P., Loheac Y., Werle C. (2017) Inserm. *Agir sur les comportements nutritionnels. Réglementation, marketing et influence des communications de santé*. Collection Expertise collective. Montrouge : EDP Sciences.

Dietrich, T., Jakob Trischler, Lisa Schuster, Sharyn Rundle-Thiele, (2017) "Co-designing services with vulnerableconsumers", *Journal of Service Theory and Practice*, Vol. 27 Issue: 3,pp. -

Mattelmäki, Tuuli(2008), "Probing for co-exploring", *Co-Design*, Vol. 4, No. 1, pp. 65-78.

Mick, David Glen, Simone Pettigrew, Cornelia Connie Pechmann, et Julie L. Ozanne. (2012) *Transformative consumer research for personal and collective well-being*. Routledge.

Ryan, Richard M., Heather Patrick, Edward L. Deci, et Geoffrey C. Williams (2008). Facilitating health behaviour change and its maintenance: Interventions based on self-determination theory. *European Health Psychologist.* 10 (1): 2-5.

WHO (World Heath Organization) (2016). *Obesity and overweight. Fact sheet 311* (updated June 2016) . World Health Organization, Geneva, http://www. who. int/mediacentre/factsheets/fs311/en/(last accessed 21 Dec 2016).

**Other notes for consideration**