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INTRODUCTION

- A positive health outcome for patient living with T2D is depending on the treating physician/care team, the medication or device, and also for large parts on the behavior change in patients driven by a variety of social determinants of health¹
- Ability to adopt and adhere to new routines and lifestyle choices is grounded in the trust that behavioral change is necessary, can make a difference, will have more benefits than downsides (for the patient), and is achievable. Additionally, Capability, Opportunity, Motivation, Behavior (COM-B) model, a bio-psychosocial approach contributes to understand the behavioral aspects of the trust building mechanisms in diabetes management²
 - However, the role of trust in diabetes management, particularly in the context of digital health solutions, remains sub-optimally explored
- Insulin pen connected caps (IPCC), associated with digital support platforms, are potent tools to improve glycemic control through titration support for patients with type 2 diabetes (PWT2D)^{3,4}
- The present research aimed to explore the role of social and emotional trust drivers in insulin injection management as levers for adaptation of digital health solutions

OBJECTIVE

To develop an understanding of the trust building process in relation to digital health tracking and measuring tools, with the view of leveraging this knowledge for the successful initiation of IPCCs.

METHODS

Research Design

- This was a multi-method qualitative study conducted in Germany, Spain, and USA, using a behavioural science approach
- The study methodology included
 - One-on-one interviews (90 min) with representatives of diabetes support system (eg, diabetes coaches/educators, patient group advocates).
 - Online dyad interviews (120 min) and online homework (120 min) with PWT2D with different behavioural mind states (struggling, juggling, controlling) and care givers.
 - Focus groups (150 min) with healthcare professionals (HCPs, including general physicians, specialists, nurses) representing conservative or innovator persona

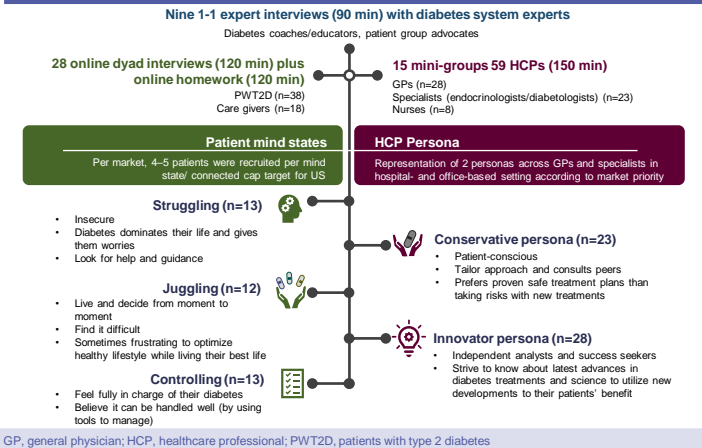
Analysis and interpretation

- Qualitative data collected during the interviews have been sorted via pattern thematic analysis into emerging themes as the primary basis for organizing and reporting the study findings. In-depth content analysis was employed to refine the final concepts and frameworks identified in the research

RESULTS

- From June to August 2022, nine interviews with diabetes support system experts, 28 dyad interviews with PWT2D and care givers, and mini focus groups with 59 HCPs (28 general physician, 23 specialists, and 8 nurses) were conducted (Figure 1)

Figure 1. Overview of participants



Role of trust in healthcare

- Patient's trust in their HCP is not always sufficient to create strong and continuous engagement and trust in data collection and digital devices; thus, trust in digital healthcare measuring and tracking devices is not a given

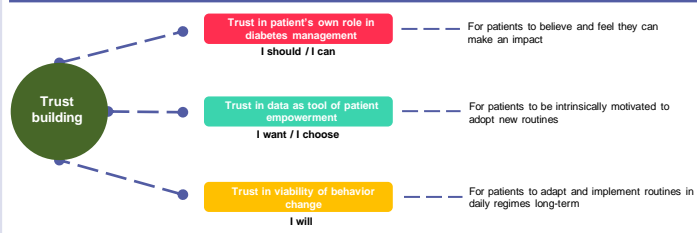
Trust building in digital healthcare solutions versus trust in medication

- "Trust" is closely tied with beliefs, cultures and associated with an expected positive/beneficial outcome that meet the user's needs. Trust in digital healthcare operates differently from building trust in medications
- Digital healthcare tools and data collected through them do not directly treat the patient's condition; rather these tools support visualization of care patterns and their outcomes over time, and require users to act upon the data
- Groundwork for trust building can be achieved through HCP dialogue, by reframing HCP narratives to patients and employing trust building messages. Many of these mechanisms can also be leveraged with digital healthcare solutions themselves to trigger and build patient engagement (eg., opportunity to share data from IPCC with HCPs)

Mechanism of trust building in digital healthcare

- Building trust in measuring and tracking devices requires activating, motivating and sustaining desired behavior change (Figure 2)
- Patients who built trust on all three levels reported to be more in control of their diabetes, felt motivated to improve and were more interested in digital healthcare solutions

Figure 2. The three pillars of trust building



Patient experiences

- Trusting patients reported positive experiences with digital healthcare tools (Figure 3)

Figure 3. Patient experiences after trust building

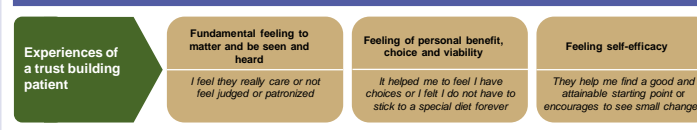
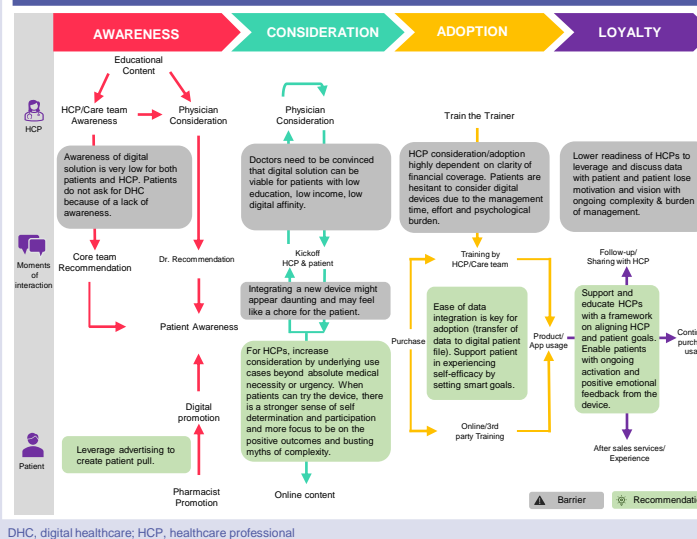


Figure 4. Trust building in the four stages of adopting digital healthcare solutions



Implication for trust building mechanisms for an IPCC

- The identified trust building experiences linked to the three pillars can be applied to the four stages of DHC adoption (Figure 4)
- Specific trust building mechanisms to be implemented at different stages of the IPCC solution adoption by HCPs and patients
- The true value and potential of insulin dose tracking emerges when viewed in the context of the larger patient-generated data ecosystem
 - For example, insulin data would be actionable in the context of patient's blood glucose levels and thus requires blood glucose monitoring in addition to insulin tracking
- To create acceptance and engagement, trust needs to be built systematically with messages that leverage data to
 - Support self-efficacy and individual balance
 - Empower personal goals via data collection
 - Showcase progress of data collection routines as life-long chronic care learning

CONCLUSION

patients with trust built on all three levels felt in control of their diabetes, motivated and engaged in digital healthcare solutions. Focus on trust building all along the user experience and engagement funnel is critical for digital healthcare launch strategies, particularly in user conversion and digital solution initiation phases.

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DISCLOSURES

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