# Optimizing Social Interaction in a Computer Mediated Environment: Features that Influence Peer to Peer Social Interaction

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## Background & Purpose

- People with type-2 diabetes (T2D) provide 99% of their own care.[1]
- High frequency interaction improves self-management.[2]
- **The purpose of the project was to:** Determine how a CME promotes and/or inhibits social interactions among peers.

## Search Methods

**MeSH terms & keywords in 3 subject/content areas searched:**

- Social interaction, social support, peer support. AND
- CME (m-health, Internet, virtual reality, telephone). AND
- Chronic disease OR diabetes.

**Inclusion Criteria:**

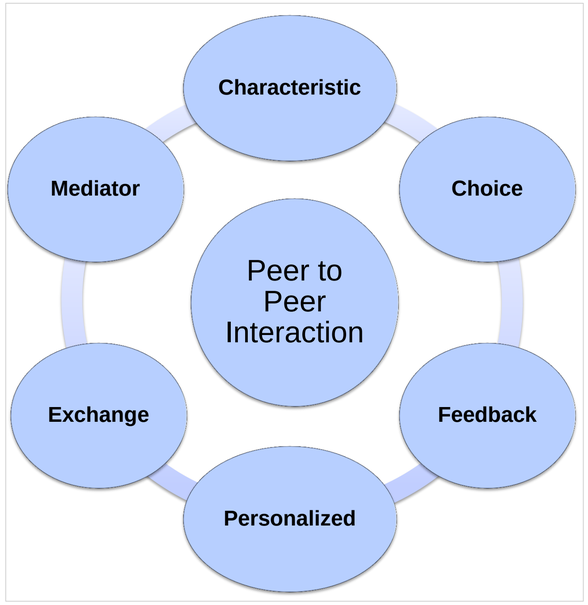
- Group peer-to-peer interaction.
- All interaction via Internet.
- Adults (> 18 years of age) with T2D.

## Search Results

- 4 databases searched: PubMed, CINAHL, SocINDEX, and PsychInfo.
- 1087 articles identified; 756 remained after duplicates removed.
- 11 articles met inclusion criteria and included in the literature review.

## Results

### Main Findings




**6 influencers of peer-to-peer interaction in a CME emerged:**

- **Characteristic**
  - Synchronous and asynchronous channels influence how social interaction occurs.
- **Choice**
  - Individuals control their: (1) rate, amount, and duration of interaction; & (2) time and location of participation.
- **Feedback**
  - Individuals can ask questions which increases the personal relevance of information.
- **Personalized**
  - Personalized support from peers supplements formal information from providers.
- **Exchange**
  - CMEs enable the exchange of support among peers.
- **Mediator**
  - A person who encourages & facilitates social interaction among peers.

### Operationalized Descriptions of Channels Employed in CMEs

**Forum**

- Discussion board.
- Participants interact with each other by posting asynchronous messages in different subject areas.

**Text Chat**

- Instant messaging.
- A synchronous or asynchronous text conversation.

**Videoconferencing**

- Video-messaging or chat.
- Participants synchronously interact with others via their personal computer and. share what is on their screen and see other participants in real-time.

**E-mail**

- List-serv messages.
- A text based message from a sender to a recipient through a software environment.

## Key Conclusions

- Casual, intimate conversations with peers on sensitive topics is important.
- High and low users of the CMEs obtain and benefit from information and feedback.
- Individuals extend their peer network by participating in interventions via CMEs.

## Implications & Future Research

- Knowledge of the channel which participants find beneficial in peer-to-peer interaction must be identified.
- Understanding social interaction in CMEs allows for development of interventions to increase self-management behaviors of persons living with T2D.
- Persons living with T2D communicate and interact with peers to obtain relevant, situation specific information and knowledge about managing their own care.

## Selected References

1. Funnell MM, Anderson RM. Changing office practice and health care systems to facilitate diabetes self-management. *Current diabetes reports.* Apr 2003;3(2):127-133.
2. Steinsbekk A, Rygg LO, Lisulo M, Rise MB, Fretheim A. Group based diabetes self-management education compared to routine treatment for people with type 2 diabetes mellitus: a systematic review with meta-analysis. *BMC Health Serv. Res.* 2012;12:213.