The social networks of people with type 2 diabetes (T2DM) can play a significant role, both positive and negative, in their diabetes self-management. Health-related social support and social control have been identified as two of the key pathways accounting for the ways in which social networks (primarily marital relationships) influence self-management and coping. However, few studies have examined these pathways within a wider social network (e.g. friends, work colleagues).

We aimed to explore how adequately the social support and social control frameworks “fit” with the wider social network. We conducted an interview study with 25 adults with T2DM (12 (48%) women; mean age: 59±14 years; mean diabetes duration: 7±7 years). Interviews averaged 55 minutes and were audio-recorded. Transcriptions were imported into NVivo 10 for deductive thematic analysis.

Instrumental and emotional social support, and positive and negative social control were identified themes. Positive social control referred to control actions (e.g. being told to exercise, or not to eat certain foods) being perceived as helpful by the person with T2DM, whereas negative social control involved such actions being regarded as unhelpful. Most interviewees reported feeling supported by their social network, with almost half reporting that the control was helpful. However, one third interpreted their social networks’ control actions as intrusive and critical. In addition to these four key domains, non-involvement was identified as an important theme. For many, non-involvement by the social network was interpreted as a positive indicator of their successful T2DM management; for others it was neglectful and upsetting.

It is evident that the wider social network, not just the immediate family, can impact both positively and negatively on diabetes self-management. Furthermore, while active social support and control can be both helpful and harmful, lack of involvement from others can also be perceived negatively by the person with T2DM.

Presented at: 75th Scientific Sessions of the American Diabetes Association
(5-9 June 2015, Boston USA)

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Social support and social control in type 2 diabetes: an interview study

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Background
Management of type 2 diabetes (T2DM) involves regular self-care activities1 and positive feedback to those perceived to be coping effectively with their illness3. The health-related social control and social behaviour by close friends or family members can significantly impact the experience of living with T2DM. Significant others can draw inextricably into the 'self-care' process. They can have a positive or negative influence upon T2DM self-care1,4. Family, friends or significant others can either support or undermine health-related social activities. Participant experiences of support and social control of family members and friends can influence whether patients perceive T2DM self-care as supporting or undermining. There is a need to determine the factors that influence the interpretation of social interactions as either positive or negative and generating greater understanding of any differences in impact of the close and wider social networks on diabetes self-care.

Aim
To explore how adults with T2DM perceive the interactions of their close social network (e.g. family, partners, children) and wider social network (e.g. friends, work colleagues) in relation to their diabetes self-care.

Method
Design and participants
- Semi-structured interviews with 25 Australian adults with T2DM.
- 12 (48%) women
- Age: 59±14 years (range: 22-79 years)
- Diabetes duration: 7±7 years (range: 0-29 years)
- Participants were recruited through:
  - The membership list of Diabetes Victoria (the peak consumer body representing people affected by diabetes in the state of Victoria, Australia)
  - Diabetes related media (e.g. diabetes magazines) and social media (e.g. Facebook)

The study was promoted as a general exploration of the social experience of living with T2DM, with no specific reference to the impact of diabetes on relationships or family to avoid biasing participant self-selection.

Data collection and analysis
- Participants were asked a series of open-ended questions about interactions about diabetes self-care among their social network, i.e. their family (e.g. spouse, children, parents, siblings), friends, and work colleagues.
- All interviews were audio-recorded and transcribed verbatim, with transcripts imported into NVivo v10 to facilitate data coding, retrieval and analysis.
- The analysis was conducted using a deductive (theory driven) approach to facilitate the interpretation of identifiable themes for pre-determined, specific research questions.

Table 1. Themes and quotes regarding perceptions of close and wide social networks

<table>
<thead>
<tr>
<th>Theme</th>
<th>Description</th>
<th>Close social network (i.e. family)</th>
<th>Wide social network (i.e. friends and colleagues)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive social control</td>
<td>Individual readily accepts, and often expresses appreciation for, social control behaviours</td>
<td>I’m fortunate I have a very supportive husband and I think that makes a difference too… Clive will say “You shouldn’t have that.” (woman, aged 79)</td>
<td>Some of them (friends) are very, very good and quite often they will say to me “Should I have had your insulin shot?” They remind me. (man, aged 65)</td>
</tr>
<tr>
<td>Negative social control</td>
<td>Individual regards social control behaviours as unhelpful, critical or intrusive</td>
<td>“They’ve been very on me at times to lose weight and be healthier.” (man, aged 46)</td>
<td>“I have a bag of chocolates on the counter, especially working in the birth suite and it gets hectic, sometimes people put chocolates on the counter and I have a few and I have had people say ‘Are you sure you’re going to have another one of those?’” (woman, aged 89)</td>
</tr>
<tr>
<td>Instrumental social support</td>
<td>Individual perceives the social network to provide some form of practical assistance to help manage T2DM</td>
<td>I’ve got a sister-in-law who’s bought, with her own money, several books to give me and they’re textbook-type prices. And you think ‘That’s a very nice of you, thank you very much.’ (She says) I saw this and thought of you and there’s some good recipes in here and that sort of thing.” (man, aged 57)</td>
<td>“If you’re friends and make food if you go out, they will try to make something or bake something for you that you can eat.” (woman, aged 60)</td>
</tr>
<tr>
<td>Emotional social support</td>
<td>The social network to offer emotional validation, understanding or support</td>
<td>“But another friend who became diabetic… maybe 15 years ago… he soldiers up to me and says to me ‘How you going sugar?’ So that’s just sort of a thing between us.” (woman, aged 59)</td>
<td>“I have a bag of chocolates on the counter, especially working in the birth suite and it gets hectic, sometimes people put chocolates on the counter and I have a few and I have had people say ‘Are you sure you’re going to have another one of those?’” (woman, aged 89)</td>
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References

Results
Seven themes were identified relating to the immediate social impacts and experiences of people with T2DM (see Table 1): The interpretation of health-related social control was variable:
- 11 participants (44%) made 14 references to their experience of positive and helpful social control behaviours by their social network:
  - 4 were about the wider social network (i.e. friends)
  - 2 were about the wider social network (i.e. referred to colleagues and friends; a friend referred to colleagues)
  - 5 were about the wider social network (i.e. 4 referred to friends and 1 referred to colleagues)
- Of the new themes emerging from the data, ‘non-involvement’ was the strongest overall:
  - 11 participants (44%) made 24 references to their experience of positive non-involvement by their social network:
  - 5 were about the wider social network (i.e. 4 referred to friends and 1 referred to colleagues)
  - 5 participants (20%) made 7 references to their experience of negative non-involvement by their social network:
  - 2 were about the wider social network (i.e. friends and colleagues).

The final theme to emerge was ‘unintentional undermining’:
- 4 participants (16%) made 5 references to their perception of the social network to provide positive involvement, while 7 participants (28%) made 12 references to their experience of negative involvement by their social network:
  - 5 were about the wider social network (i.e. 5 referenced friends and 2 referenced colleagues)
  - 7 were about the wider social network (i.e. 5 referred to friends and 2 referred to colleagues).

Health-related social support was categorised into:
- instrumental social support: 13 participants (52%) reported 22 occurrences
- emotional social support: 12 participants (48%) reported 26 occurrences
- social control: 19 participants (77%) reported 37 occurrences

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- All interviews were audio-recorded and transcribed verbatim, with transcripts imported into NVivo v10 to facilitate data coding, retrieval and analysis.
- Thematic analysis using a deductive (theory driven) approach was used to facilitate the interpretation of identifiable themes for pre-determined, specific research questions.

Two themes – Social Control and Social Support – were predetermined and the remainder were generated from the data.

Two researchers (TNJ & AV) read and re-read the data, conducted independent coding, and came to 100% agreement through discussion on the final coding framework.

Acknowledgements
This project was funded by the Centre for Mental Health and Well Being Research, Deakin University and Diabetes Victoria. It was also funded by the ACU Faculty of Arts and Sciences Internal Research Grant. We thank the adults with T2DM who participated in this study.

Conclusion
Health-related social control and social support interactions were perceived both positively and negatively by participants. These models fitted the data to an extent but new themes also emerged, indicating that the models did not completely account for participant experiences.

Non-involvement (perceived positively and negatively) and unintentional undermining by significant others (largely perceived negatively) were also identified as impacting upon diabetes self-care.

There were similarities between participants who perceived the interactions of their close and wider social networks in relation to their diabetes self-care.

However, the close social network was more than the wider social network, indicating that participants may not discuss their T2DM as much with those outside the family, or that family may feel more comfortable sharing their views about their person’s diabetes.

Future research needs to focus on:
- determining the factors that influence the interpretation of social interactions as either positive or negative
- generating greater understanding of any differences in the impact of close and wider social networks on diabetes self-care.