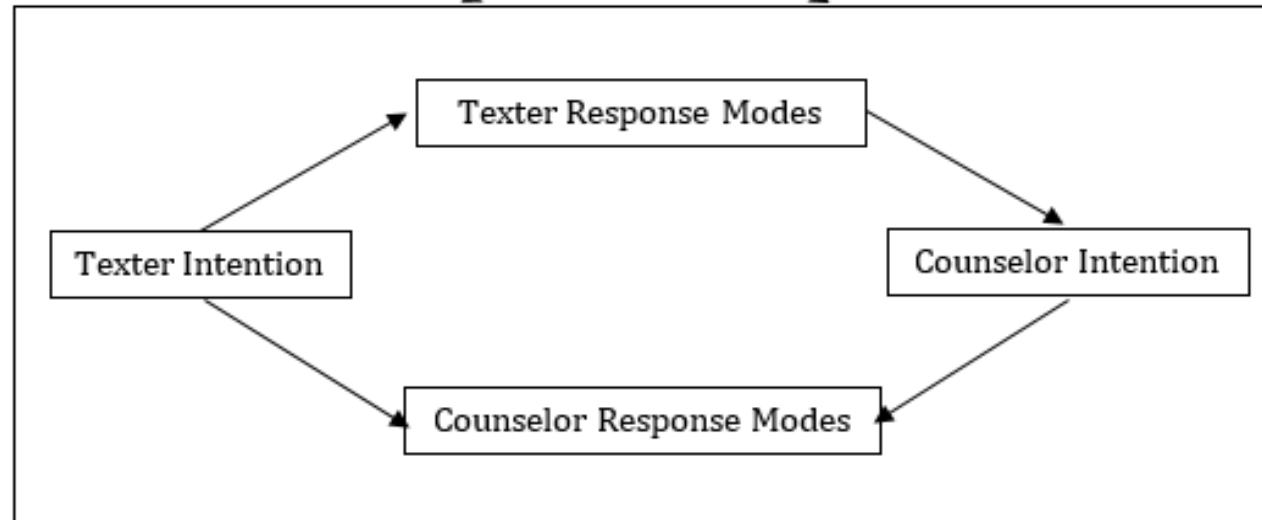


Intervention process at CTL. Engaged messages constitute 80% of all incoming messages

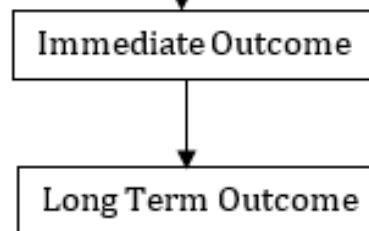
Pre-intervention



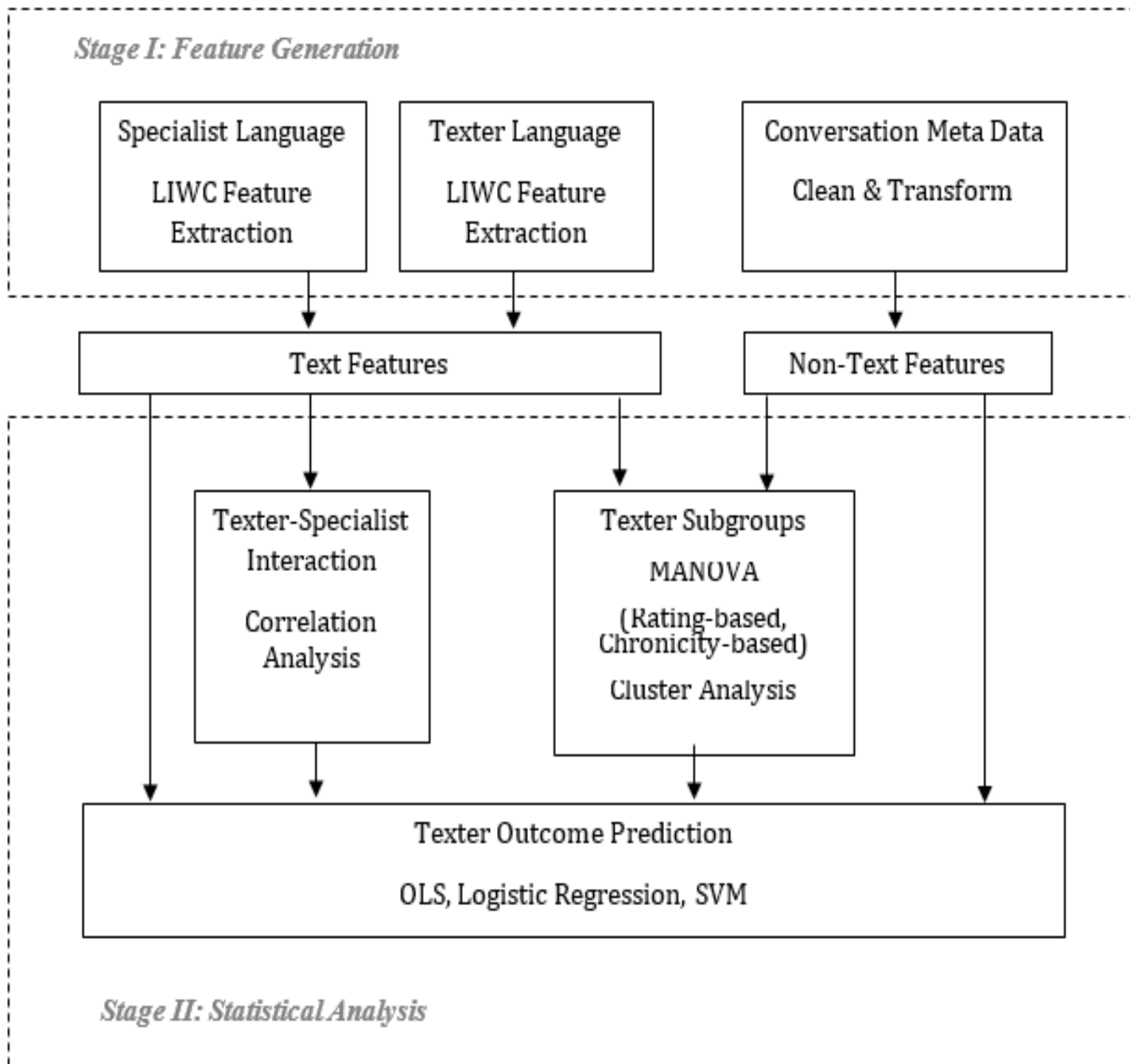
During Intervention



Post-intervention

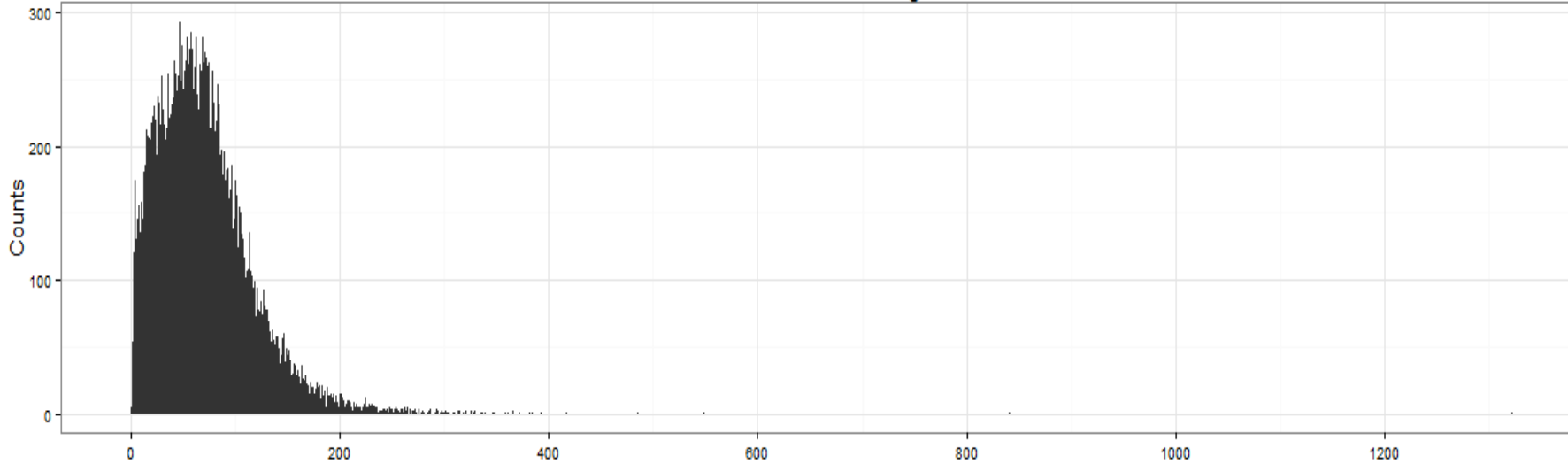


**The Process Model of
Crisis Intervention,
presented in another way.**

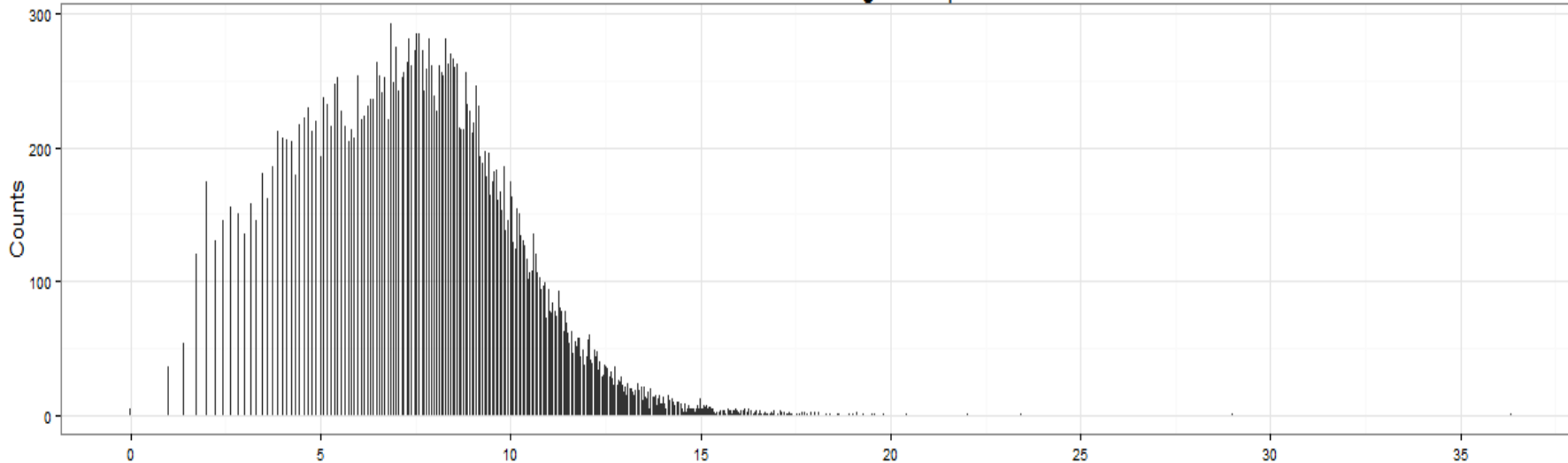


Quantitative Methods Diagram

Distribution of Conversation Length in Minutes*

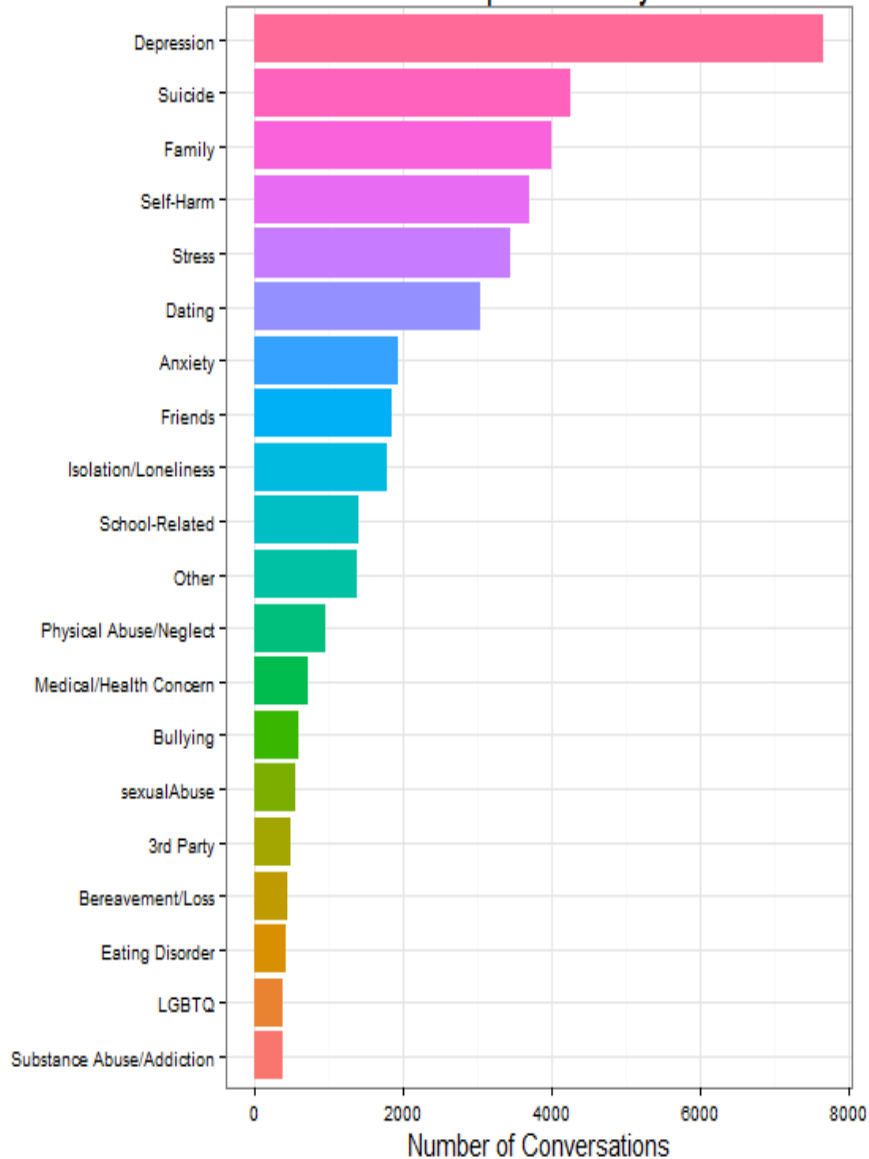


Distribution of Conversation Length in Squared Minutes*

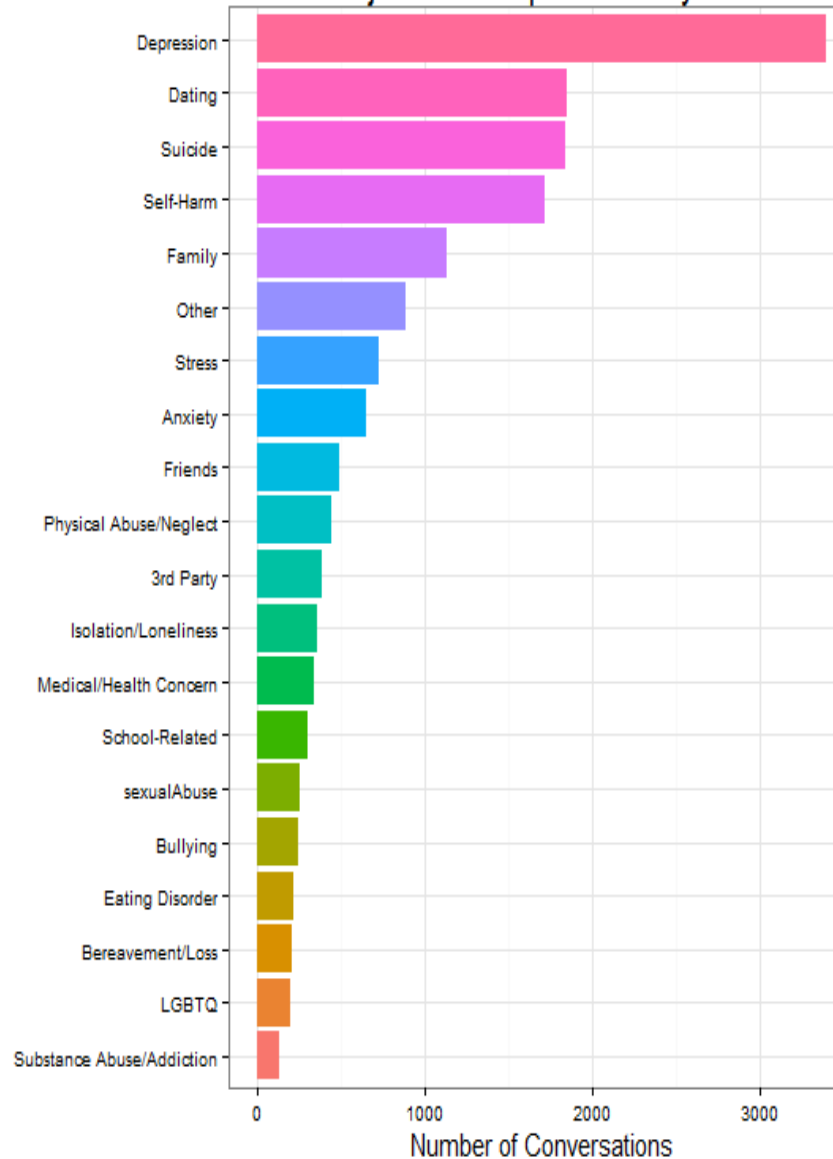


How long does a conversation last? A typical conversation lasts around 50 minutes (*mode* = 47). The distribution of conversation length has a long tail on the right (*sd* = 46), with more than 21% of the conversations longer than 2 hours, and the longest conversation taking almost 4 hours.

Common Issues Experienced By CTL Texters*

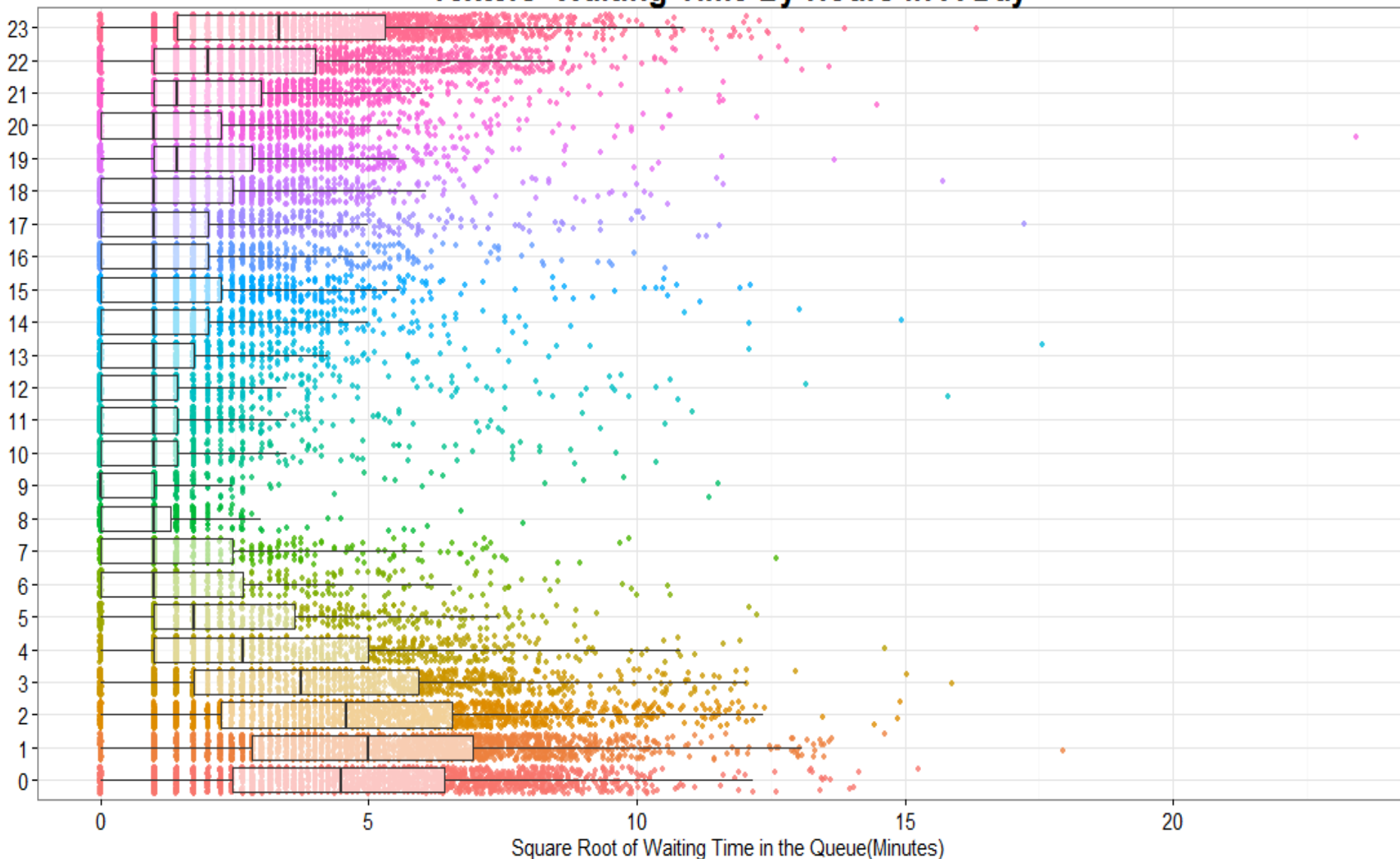


Common Major Issues Experienced By CTL Texters*



What crisis issues bring texters to CTL?
 Depression, Relationship and Suicide rank as the top 3 major issues that cause mental crisis of texters. Please note that crisis issues are often associated, meaning one major issue may trigger several side issues.

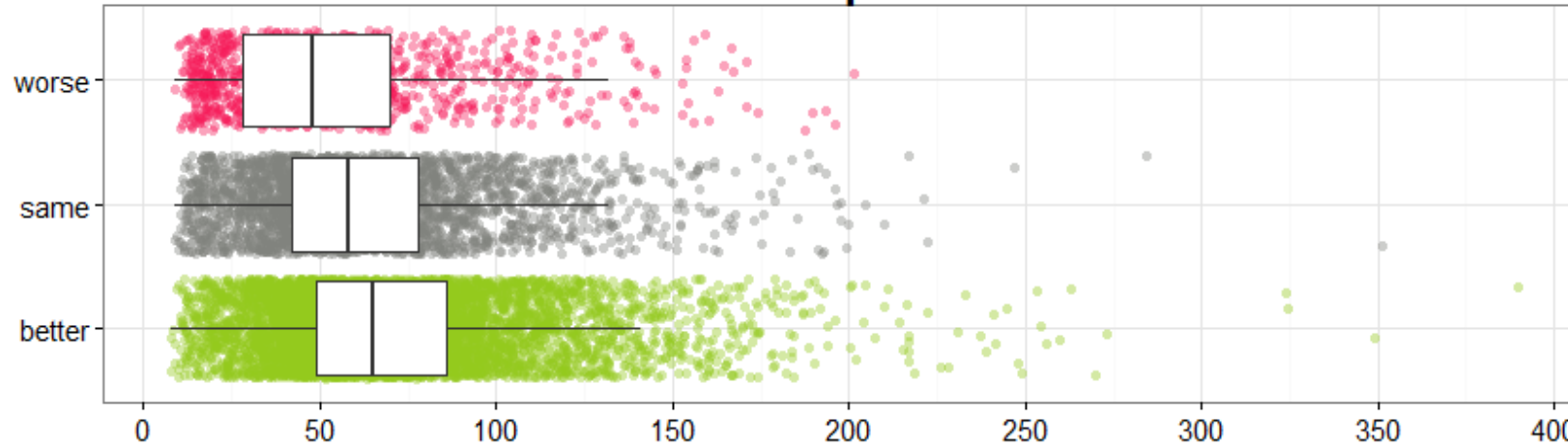
Texters' Waiting Time By Hours in A Day



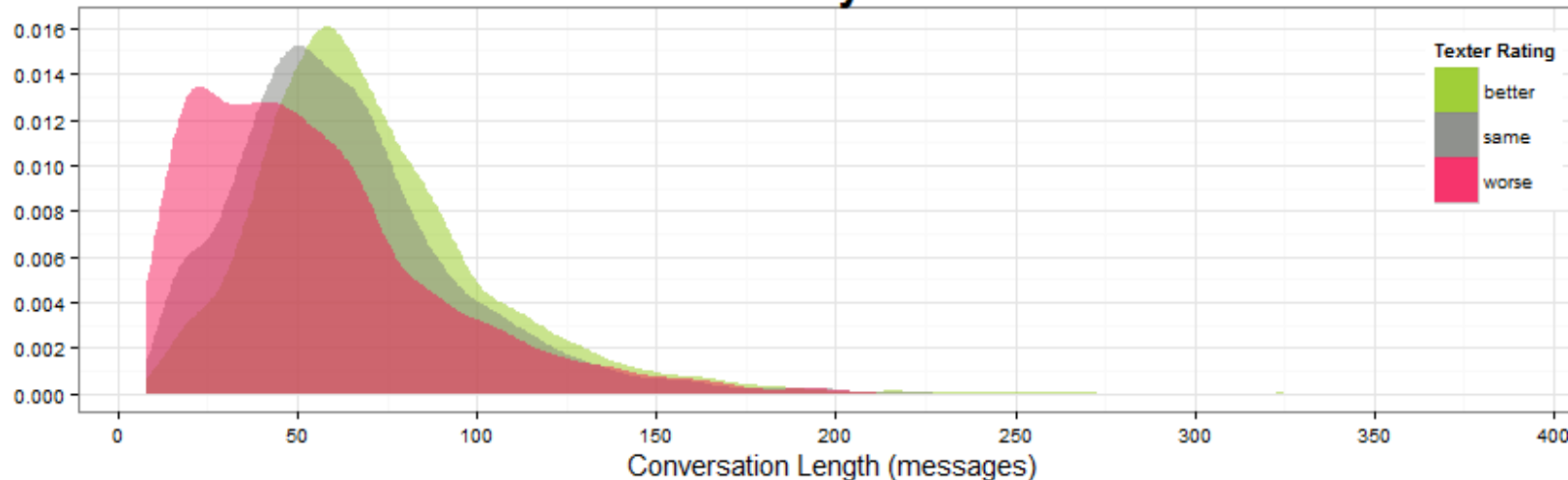
Limitation of Capacity at CTL. Due to limited counselor staffing capacity, texters sometimes have to wait for hours in the system queue. As evidenced by the density of dots in this plot, midnight usually sees the most texter volume but is also when the number of available counselors is most limited. It's been proved that longer waiting time will damp conversation engagement.

Conversation Length (Total Messages) and Texter Rating

Boxplot



Density Plot

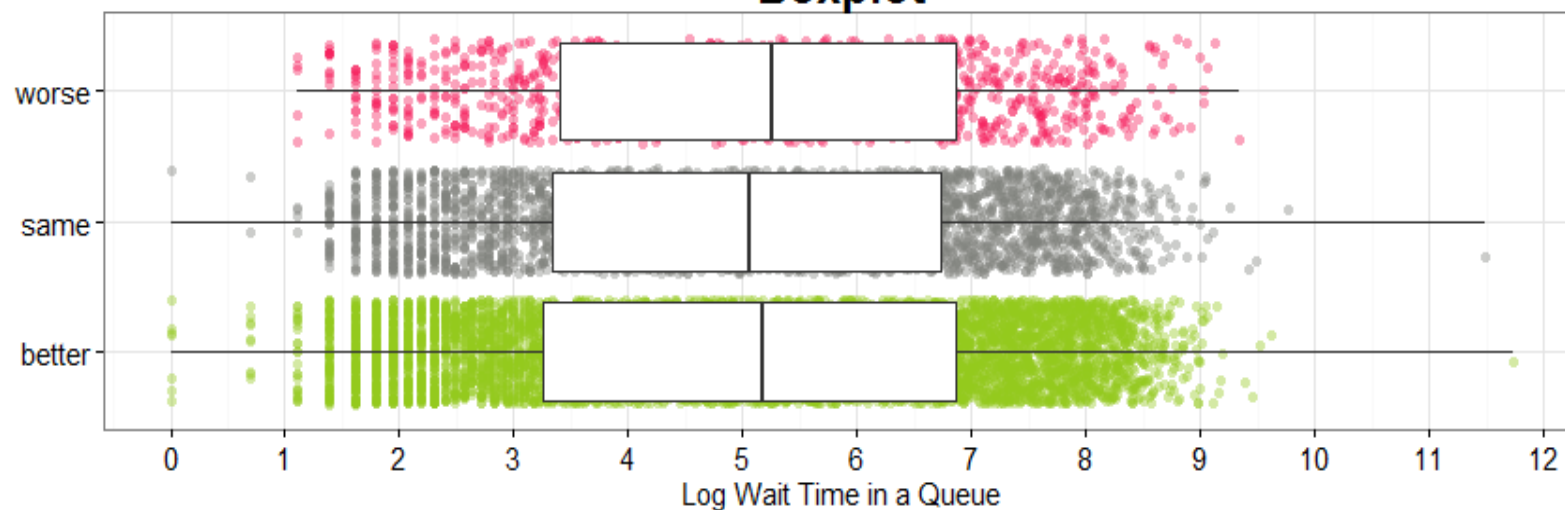


Longer conversation tends to have better outcome.

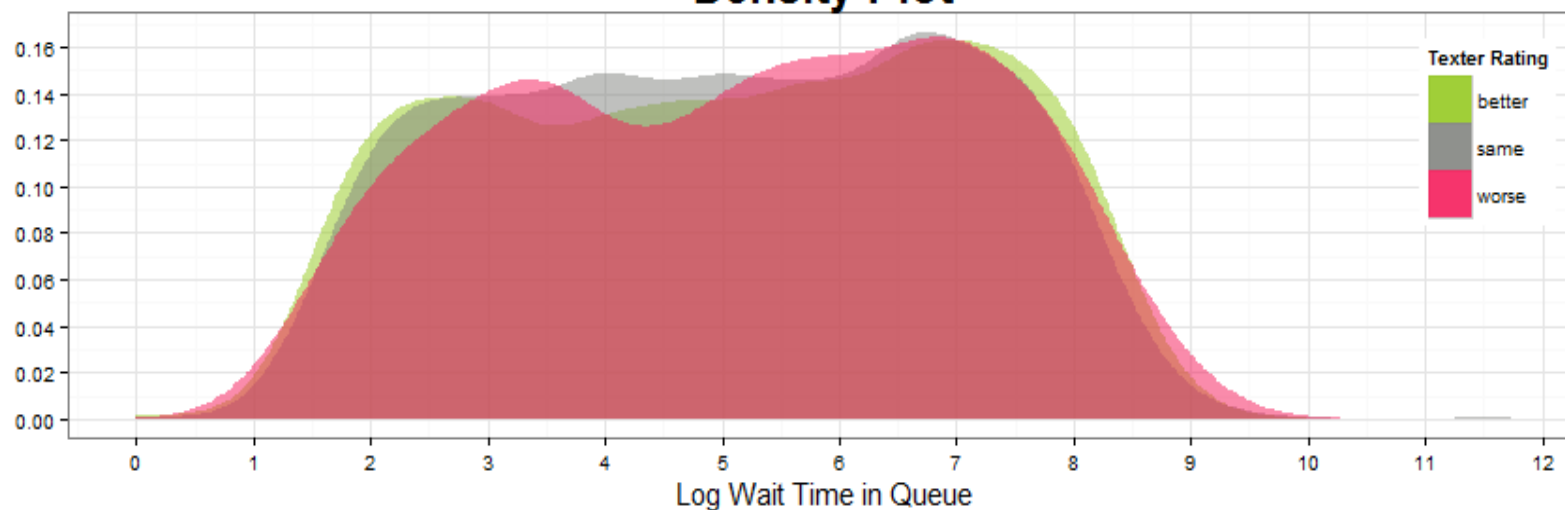
Total number of messages is strongly and positively correlated with the rating given by texters at the end of a conversation. One possible explanation can be that more exchanged messages signal more active and in-depth communication between the texter and counselor, thus resulting in better intervention outcome.

Wait Time in Queue and Texter Rating

Boxplot



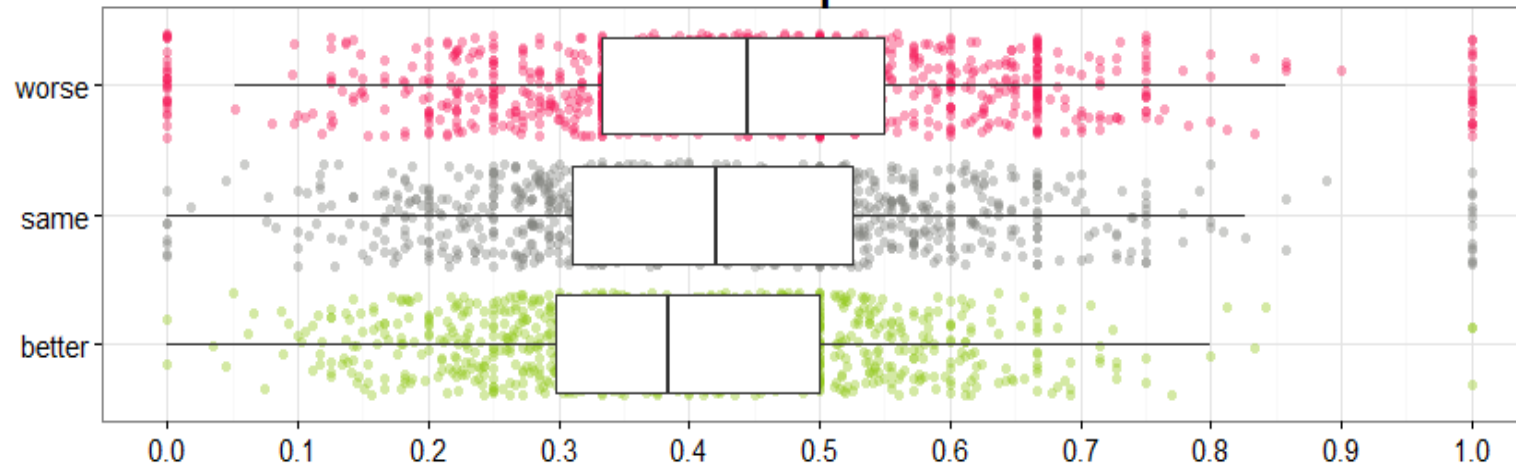
Density Plot



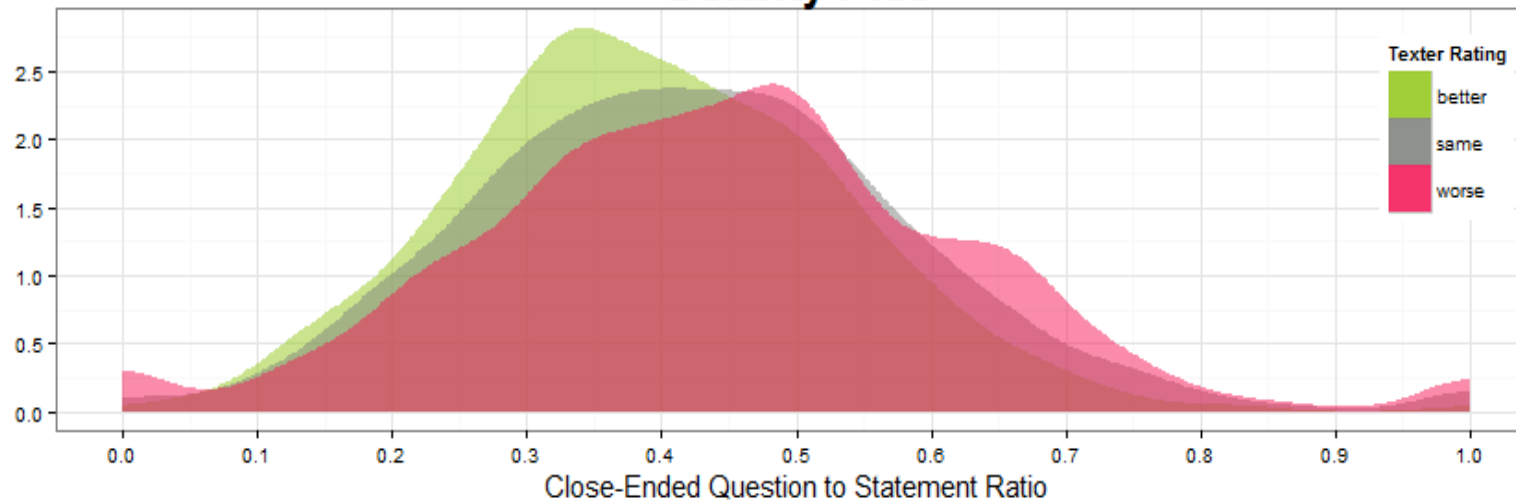
Once engaged, texter wait time does not affect intervention outcome. Surprisingly, it seems that texter wait time in the system queue only harms conversation engagement rate. As long as the texter is still willing to talk, intervention outcome is not affected by wait time.

Close-Ended Question to Statement Ratio and Texter Rating

Boxplot

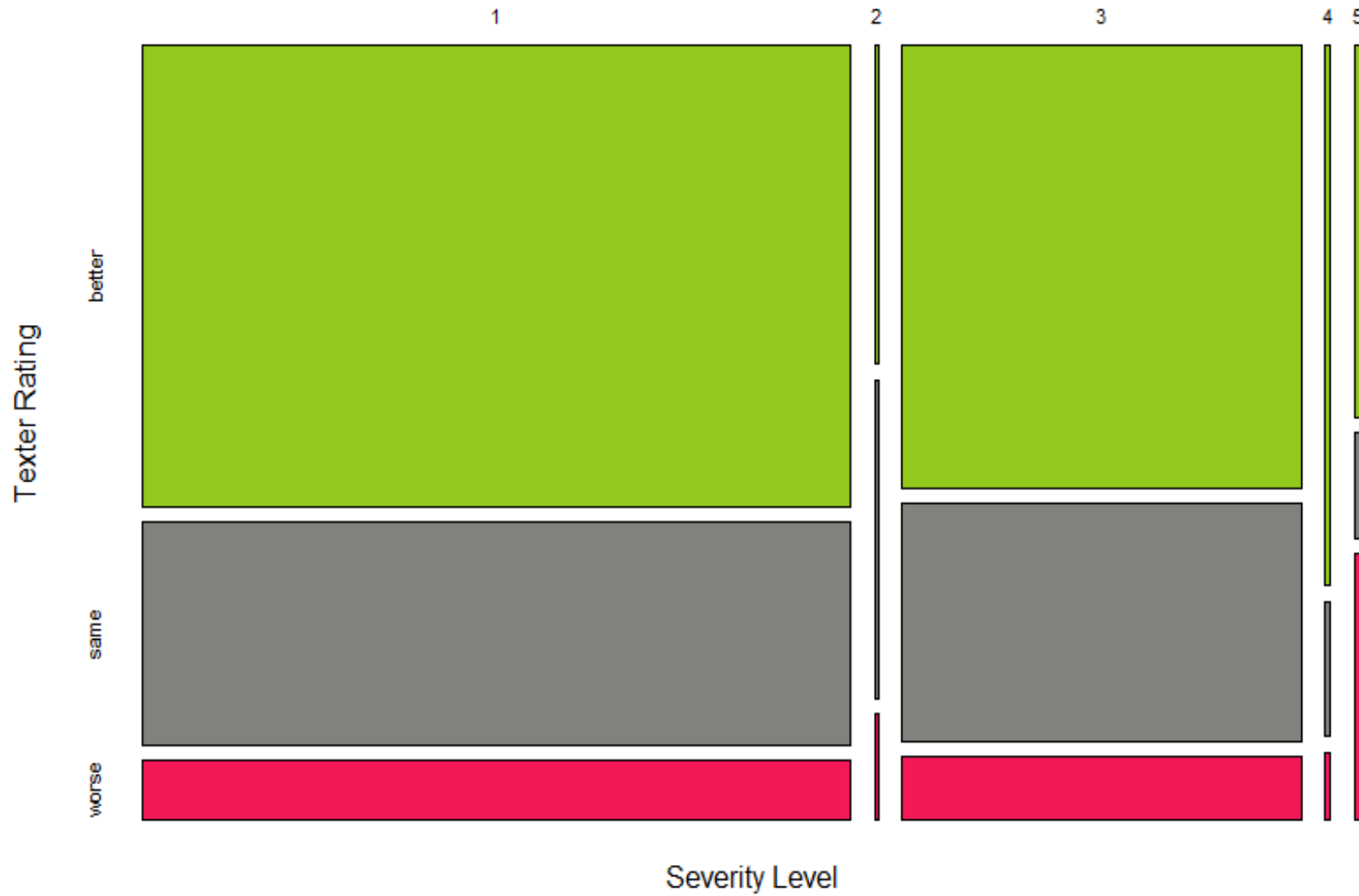


Density Plot



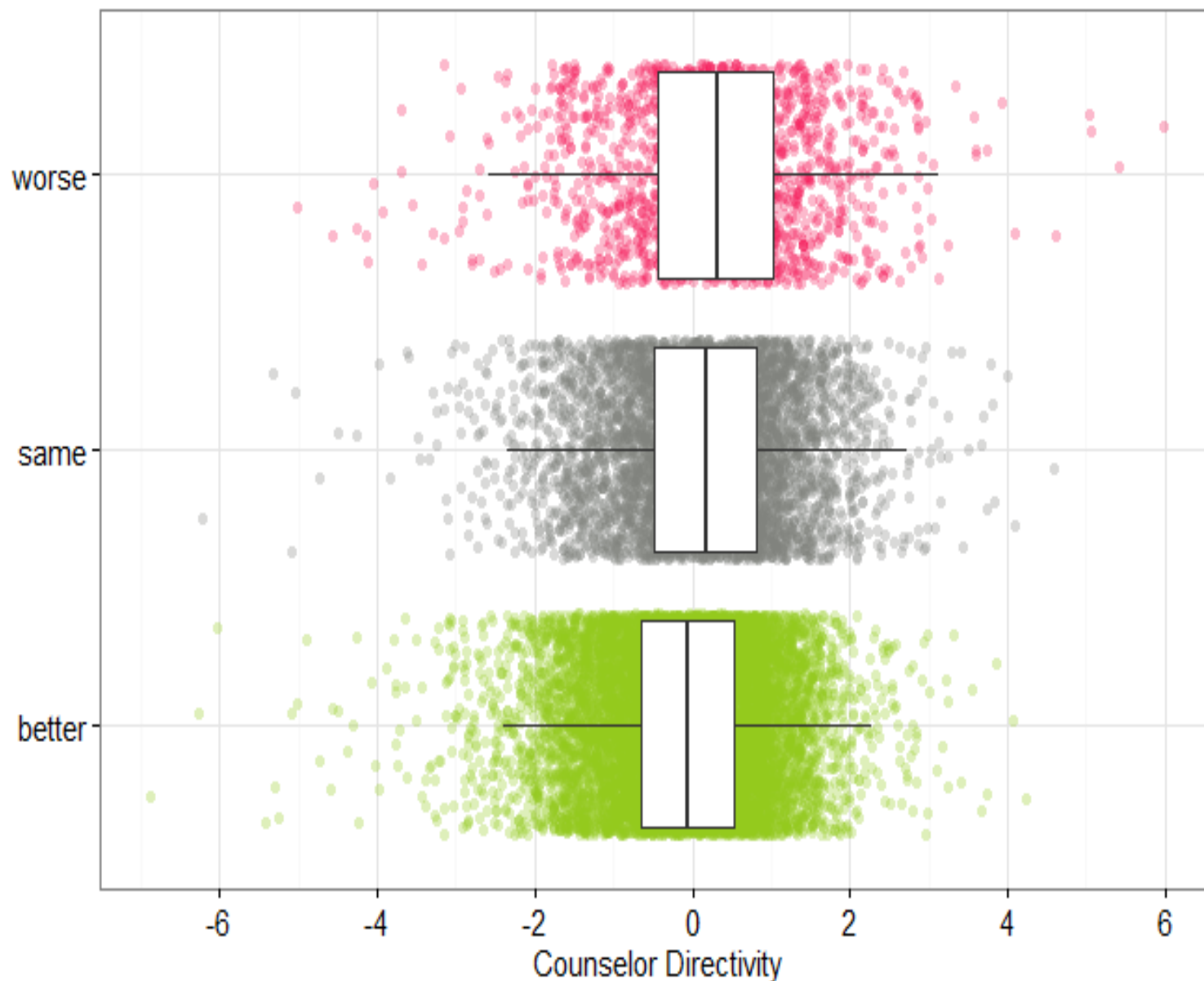
Counselor asking close ended questions will harm the intervention. Probing is an essential technique in crisis intervention to help counselor reveal texter's mental status. However, counselors need to ask the right question. As evidenced in the plot, asking close ended questions will only make texters feel worse.

Severity of Issues and Texter Rating

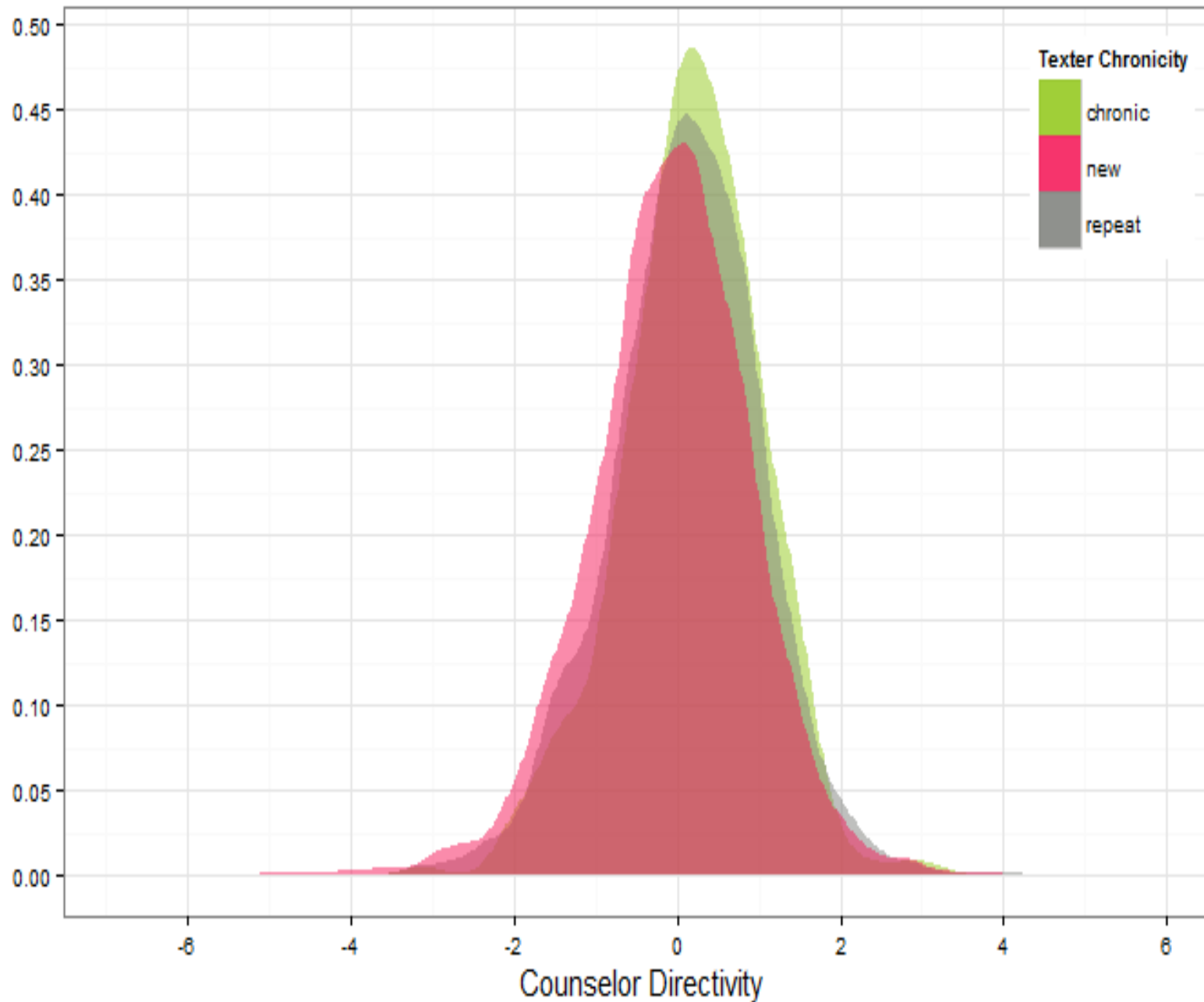


Conversations where active rescue is provided have worse intervention outcome as indicated by texter rating.

Severity of issues is evaluated based on post conversation surveys and records for active rescue, and increases with levels. By comparing the proportion of conversations rated as better, same, worse in each level, we found that only level 5 has significantly more worse-rated cases. This finding encourages binning the variable to binary.



Counselors adopting a more directive intervention style get worse texter rating. As evidenced in this boxplot, non-directive styles seem to work better with texters at Crisis Text Line. Both the median and the mean for “better” conversations take negative value, meaning the texeter is in a leading position as compared to the counselor. The same statistics are positive for the “same” and the “worse” group, meaning the counselor is in a more dominant position.



Counselors adopt a more directive intervention style with chronic texters. It's interesting that counselors do have different intervention strategies for different texters. As shown in the density plot, chronic texters are usually counseled in a more directive style. The intervention strategy with new texters varies more, but is in general less directive.