Individuals with Prader-Willi syndrome were found to participate in fewer social activities and have difficulties in developing relationships with peers when compared to people with Williams and Down syndromes. It has been suggested that targeting the behavioural difficulties seen in individuals with Prader-Willi syndrome may be a way of improving social behaviours and competence. However, it is important to note that due to the social profiles of the comparison groups (Williams and Down syndromes), it is difficult to draw strong conclusions from this research.

Research has shown that individuals with Prader-Willi syndrome may have difficulties recognising facial expressions of emotion and social intent compared to typically developing individuals. Research has found that people with Prader-Willi syndrome have difficulty identifying the six facial expressions of emotion that are thought to be universally recognisable across different cultures. These emotional expressions are happy, sad, surprised, disgusted, angry and fearful. People with Prader-Willi syndrome were better at recognising happy faces than any other emotion, which is the same as typically developing individuals, however, individuals with Prader-Willi syndrome still make some errors when identifying happy faces. These difficulties could be due to differences in the way individuals with Prader-Willi syndrome process incoming information, which could impact on social skills.

Social abilities in Prader-Willi syndrome seem to vary according to genetic subtype and those with the uniparental disomy subtype may experience more difficulties in interacting with others.

Despite reports of social difficulties, one study found that compared to individuals with intellectual disability without Prader-Willi syndrome, individuals with Prader-Willi syndrome showed strong instincts to want to help others. Additionally the researchers anecdotally reported individuals with Prader-Willi syndrome wanting to nurture and take care of animals or young children.