

Serious Fun Children's Network & Yale University 2014 Summer Camp Research Study *Summary*



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Executive Summary

There are exciting findings to report from this year's camp study! During summer 2014, 402 parents/caregivers of campers attending one of five camps in the SeriousFun Children's Network completed surveys about their child's wellbeing before and after camp (one month and six months after camp). The camps in this study were Bátor Tátor, Dynamo Camp, The Hole in the Wall Gang Camp, Flying Horse Farms, and The Painted Turtle.

This year's response rates were through the roof! Before camp, 76% of invited families completed surveys with 57% of families returning surveys one month after camp and 47% returning surveys at six months. Parents and caregivers reported seeing changes in their children on a number of positive attributes, including increased **interest in social activities, confidence, self-esteem, and a sense of belonging**. They also shared that campers showed increases in **adaptability, positive attitude toward taking medication, positive attitude toward medical personnel, and relationship skills** as well as significant decreases in **psychosocial challenges** (e.g., having difficulty getting along with others). The **relationship skills** that campers had at one month after camp were an important predictor of improvements in other outcomes for campers, indicating that fostering friendships and boosting relationship skills at camp might help campers take advantage of the camp experience and maximize the benefits of camp. This study replicates the findings from the previous years conducted across the entire network of SeriousFun camps, but with a significantly higher response rate.

However, there appeared to be a return to baseline for a few attributes that had changed one month after camp. That is, within six months after camp, scores returned to what they were before camp, especially for psychosocial functioning. This indicates that the effect of camp, while profound in many areas for many children, faded over time. Additionally, camper outcomes were strongest for campers who started off strong, which indicates a need to build up skills in campers before they get to camp so that the effects of camp can be magnified.

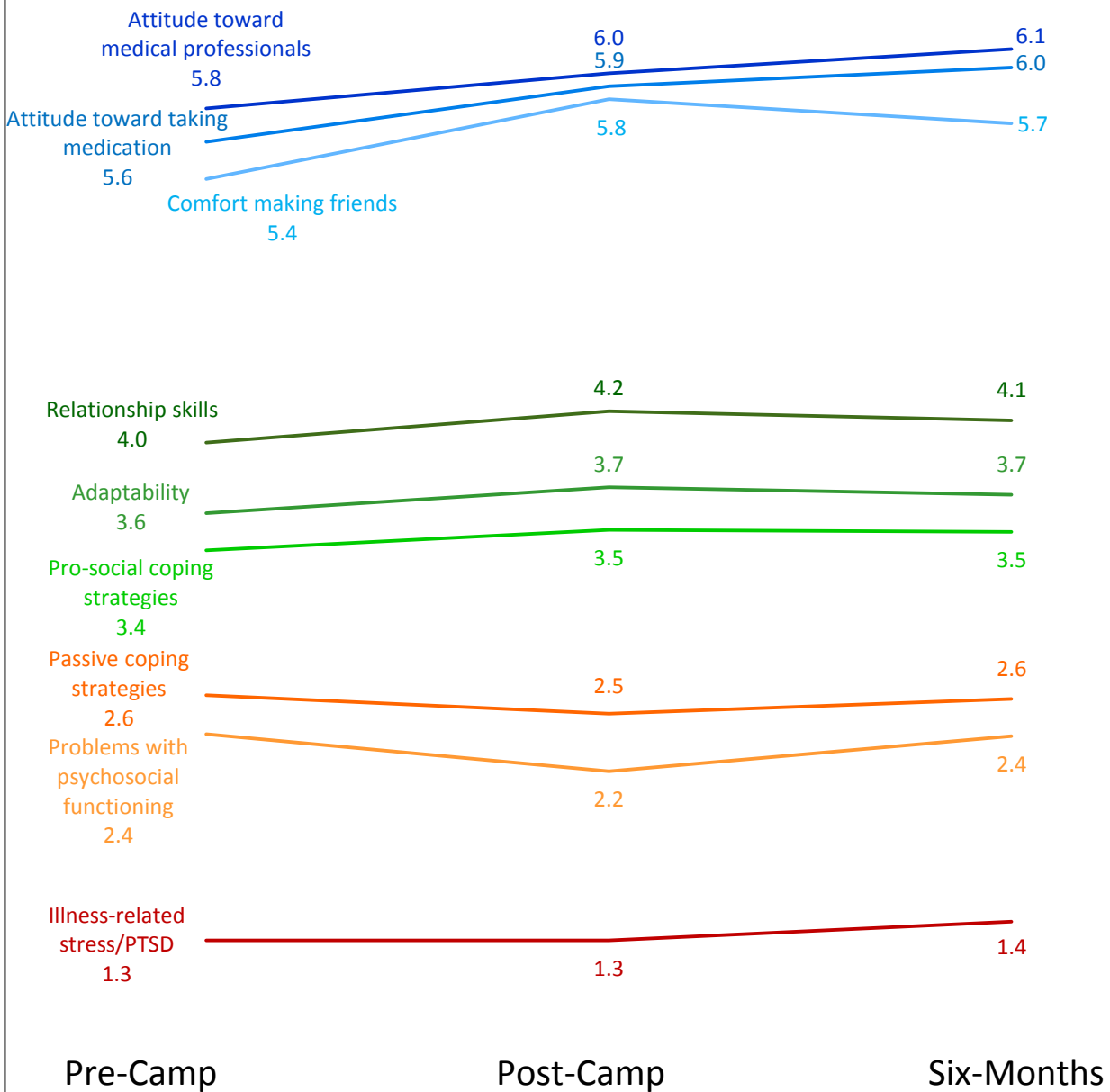
IMPLICATIONS FOR CAMPS

1. Focusing on fostering friendships and boosting relationship skills during camp may optimize other benefits of the camp experience.
2. Intentionally aiming to promote social skills and relationships after camp can help defend against a return to baseline.
3. In communications with parents/caregivers, referring medical professionals, funders, and other stakeholders, camps may find it helpful to emphasize that the camp experience is related to increased positive attitudes toward taking medication, getting along with medical professionals, comfort making friends, and improved relationship skills for the majority of campers.

RESULTS

Parent/Caregiver perceptions of camper changes over 6 months.

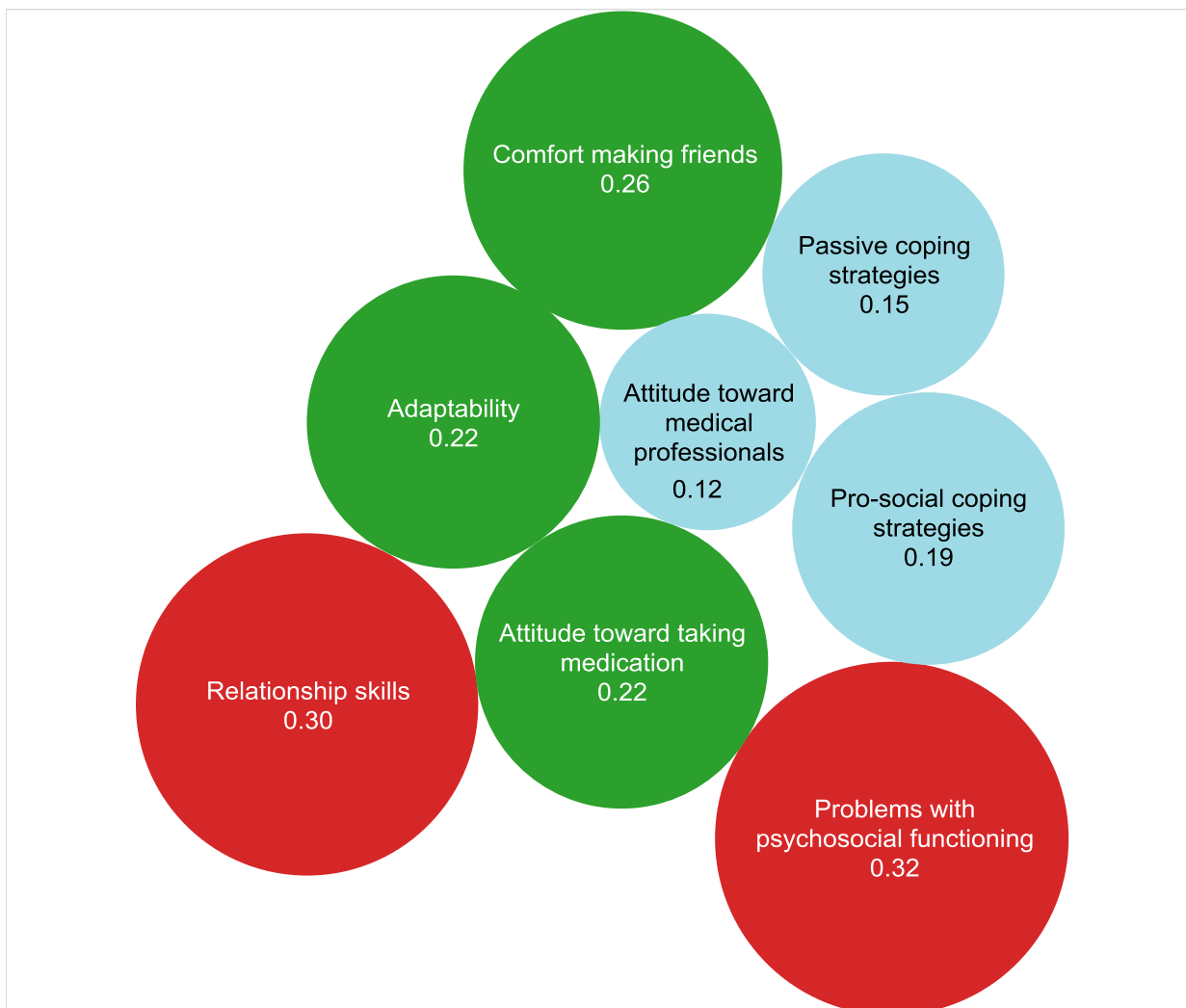
Several changes stayed at post-camp levels 6 months later. Outcomes that started high grew stronger.



HOW STRONG WERE THE CHANGES?

Just because something changed and it was a statistically significant change doesn't mean that the change was meaningful. One way to find out if the change matters is to find the effect size. Cohen's *d* effect size is the strength of the change over time, given the number of people who responded to the survey and the variability of the group's answers. Effect sizes can be small (.1-.2), medium (.3-.5), and large (.6+). The larger the score, the stronger the change. The size of each colored circle below makes it easy to compare how big of an effect camp may have had on each of these camper outcomes!

In this study, the biggest effect of camp seemed to be on campers' **relationship skills** and **problems with psychosocial functioning**, although there are still considered overall small/medium effects. Camp seemed to have very little meaningful effect on attitude toward medical professionals and no effect on illness-related stress/ PTSD.



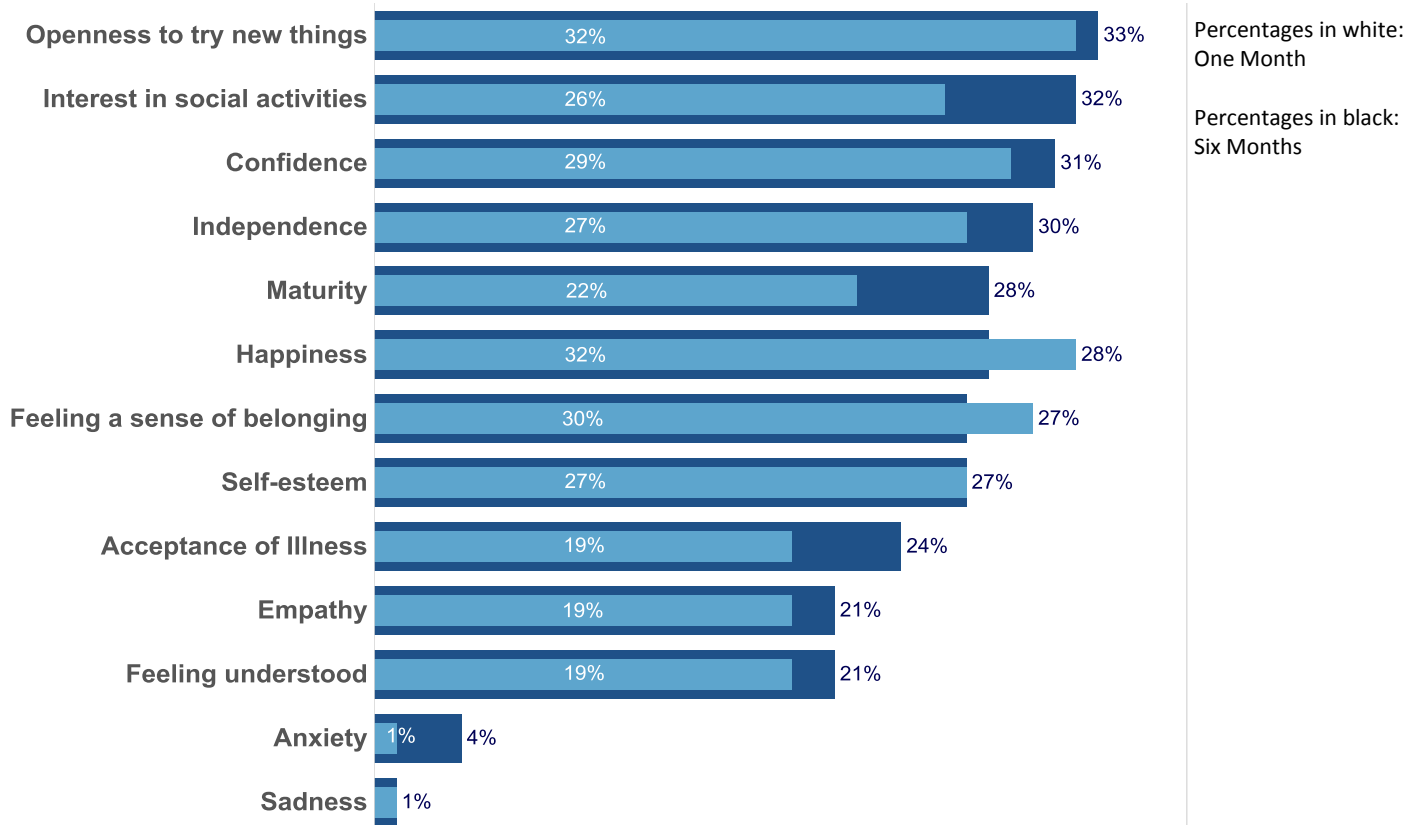
WHAT PERCENTAGE OF PARENTS OBSERVED CHANGES?

Over 70% of parents/caregivers reported positive changes from before to six months after camp in their campers' maturity (81%), openness (79%), confidence (77%), independence (76%), self-esteem (73%), happiness (72%), and interest in social activities (72%).

Over 30% of parents/caregivers reported their campers increased *a lot more* in their openness to try new things (33%), interest in social activities (32%), and confidence (31%).

Compared to other outcomes, camp seems to have a smaller influence on campers' empathy, feeling understood, feeling a sense of belonging, acceptance of illness, anxiety, and sadness.

What percentage of parents/caregivers thought these attributes changed "a lot more" six months after camp?



Interest in social activities, maturity, and acceptance of illness all increased more than 5% from one month to six months after camp. Happiness and feeling a sense of belonging decreased by 4% and 3% respectively.

WHAT INFLUENCED CAMPER OUTCOMES?

To figure out what variables influenced camper outcomes, data were analyzed to make predictions. Looking at the outcomes that showed significant changes, we saw that five camper-level variables predicted camper outcomes. The five variables were: whether or not a camper had attended camp before, gender, age, pre-test scores on the same outcome, and relationship skills. The biggest predictors of camper outcomes were pre-test scores and relationship skills, although the other three had a small impact too!

R^2 refers to how good the predictors are at explaining responses. The higher, the better! In this field of research, an R^2 over .20 is considered pretty good.

Relationship Skills Pre-test scores	Adaptability ($R^2 = .52$)
	Attitude toward illness ($R^2 = .32$)
	Comfort making friends ($R^2 = .31$) – also predicted by “attended camp before”
	Attitude toward taking medication ($R^2 = .25$)
	Psychosocial functioning ($R^2 = .24$)
	Prosocial coping strategies ($R^2 = .22$)

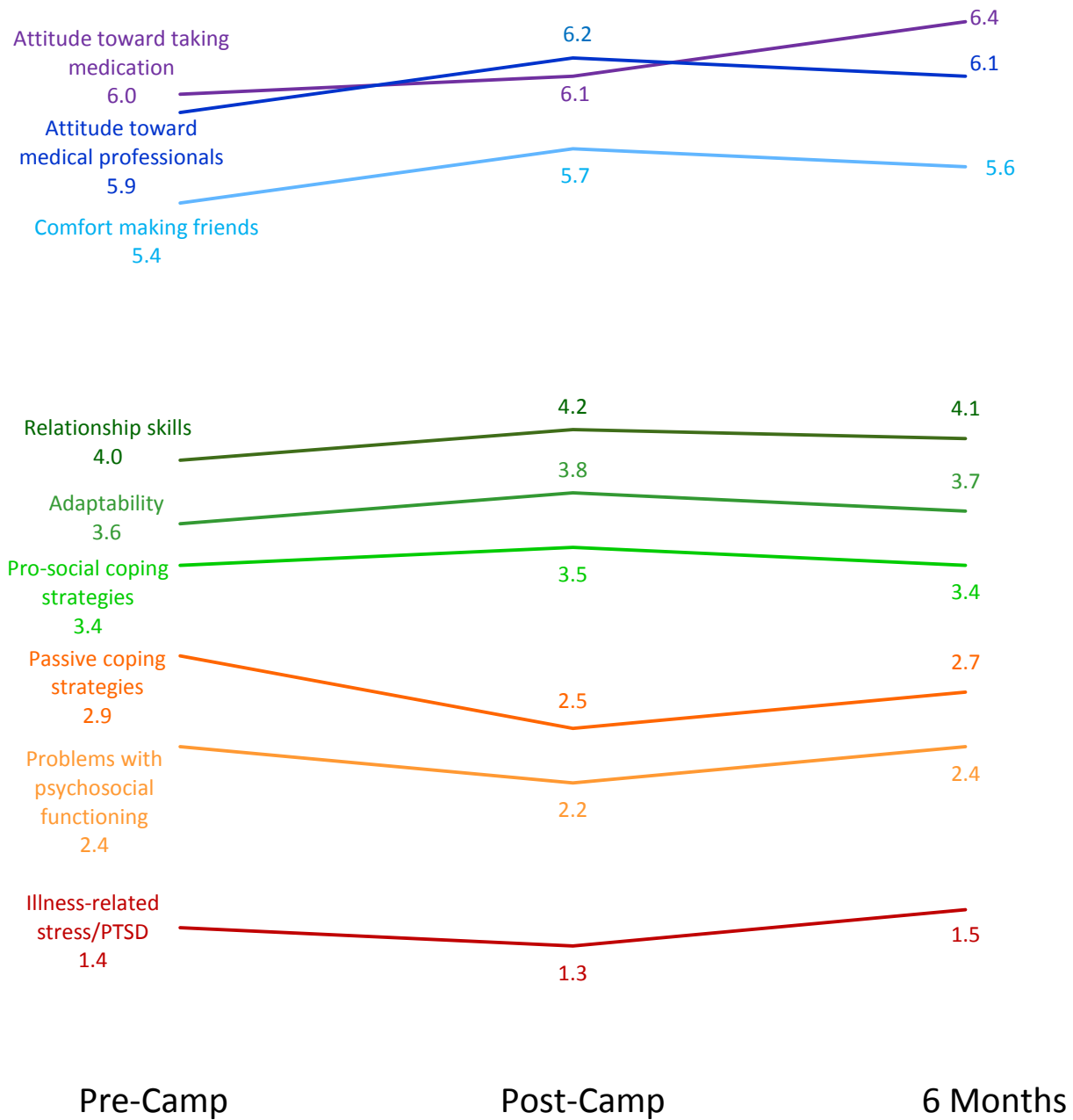
Some cautions in interpreting the previous information!

1. The data from this study show trends associated with camp participation, and these trends exist for many campers, but might not apply to all campers.
2. In general, these trends were found to be true across all participating camps, although there were individual differences across camps too. For example,
 - a. The average age of campers attending Painted Turtle was significantly higher than campers attending Hole in the Wall or Flying Horse Farms.
 - b. Children attending Hole in the Wall had significantly higher emotional reactivity scores at the beginning of the summer than campers attending other camps.
 - c. Campers attending Dynamo Camp scored lower than campers at other camps on a number of measures, including relationship skills, adaptability, use of pro-social coping and passive coping strategies, and lower scores on measures assessing attitude toward taking medication and toward medical personnel.
3. When looking at changes in children over time, it’s important to remember that changes could be attributed to getting older and maturing or to other factors. For instance, some of the changes that occur during the summer months might be related to children being out of school.

SUMMARY FOR THE HOLE IN THE WALL GANG CAMP (N = 106)

Parent/Caregiver perceptions of camper changes over 6 months.

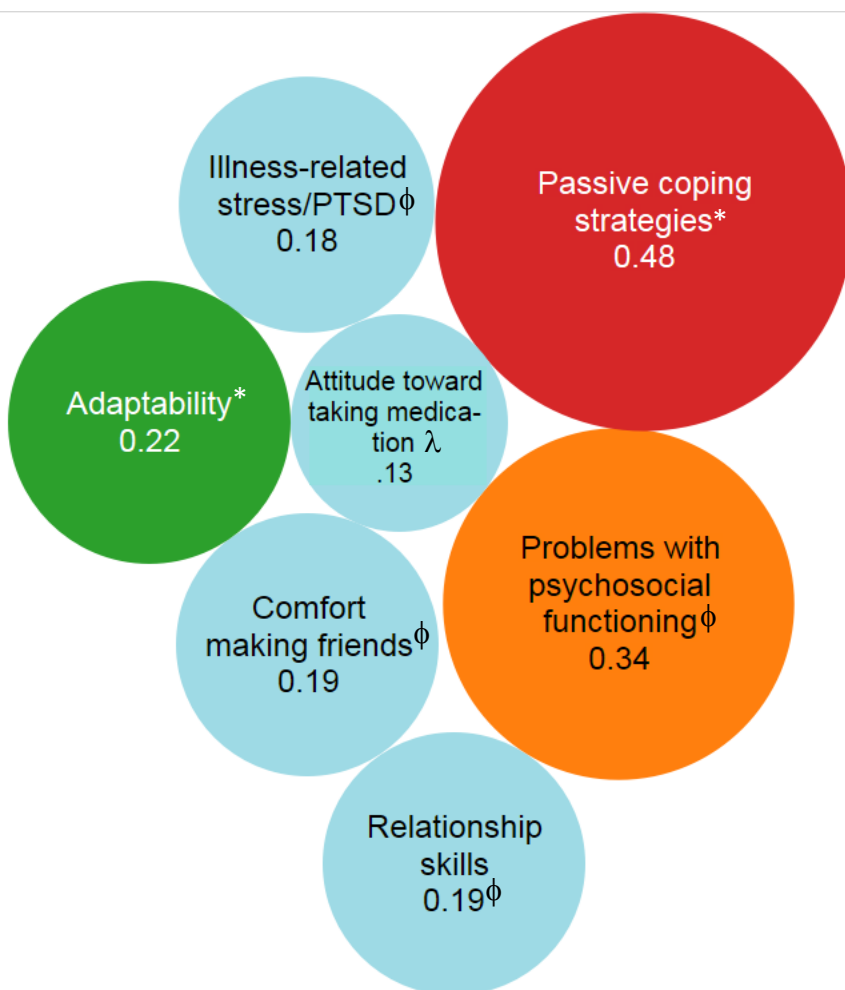
Several changes stayed at post-camp levels 6 months later. Outcomes that started high grew stronger.



So, how meaningful were these changes from pre-camp to post-camp to 6 months after camp? That is, was there a real difference between 3.6 and 3.7, for example?

Compared to other camps in the study, The Hole in the Wall Gang Camp had some differences:

1. The “passive coping strategies” outcome was moderately affected by Hole in the Wall (.48), but only slightly affected by all the camps in the study (.15).
2. “Prosocial coping strategies” and “attitude toward medical professionals” were not affected by Hole in the Wall. There appears to be a ceiling effect for “attitude toward medical professionals,” indicating that Hole in the Wall campers were very high on this outcome anyway. In the entire 5-camps sample, these 2 outcomes were only slightly affected by the camps.
3. Only 2 outcomes were affected by Hole in the Wall at all 3 time points: increases in “adaptability” (3.6, 3.8, 3.7) and decreases in “passive coping strategies” (2.9, 2.5, 2.7). These are two outcomes particularly affected by Hole in the Wall.



* Significant changes from Pre-Camp to Post-Camp to 6 months after Camp

φ Significant changes from Pre-Camp to Post-Camp only

λ Significant changes from Pre-Camp to 6 months only

HOW TO USE THIS INFORMATION

PROGRAMMING

1. Train staff to recognize and appreciate that Hole in the Wall can promote campers' psychosocial outcomes to become more resilient. Intentionally planning and programming for positive developmental outcomes can help make them happen.
2. Kids who come in to Hole in the Wall with higher relationship skills tended to have more positive outcomes. This means that *all* programming from family weekends to CampOut should support children and youth in building relationship skills.

COMMUNICATION

1. Communicate to parents/caregivers, hospital partners, and supporters that Hole in the Wall especially increases campers' adaptability and decreases their passive coping strategies.
2. Share that attending Hole in the Wall is linked to camper resilience, which is especially important for children with serious illnesses.