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the dark side of preschool:

Peers, social skills, and stress

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You send your child to preschool, hoping she will learn better people skills. Instead, she comes back with new behavior problems--increased rudeness, defiance, or aggression.

Spending lots of time with peers doesn't seem to have improved her social skills. It's made them worse!



It's an experience shared by many American parents, according to researchers at Stanford and the University of California.

Drawing on a national database of over 14,000 children from diverse backgrounds, Susanna Loeb and her colleagues examined the effects of preschool attendance on academic skills, interpersonal skills, self control, and rates of aggression.

Advertisement The results were sobering. While center-based care raised reading and math scores, it had a negative effect on social behavior. Kids who began attending daycare earlier in life were more likely to develop behavior problems. And there was evidence of a dosage effect, at least for some groups. White children experienced increased negative effects with just three hours of care per day, and the effects more than doubled for kids attending at least 6 hours each day. African-American kids didn't experience increased behavior problems unless they attended at least 6 hours a day(Loeb et al 2007).

Similar results were reported by the National Institute of Child Health and Human Development (NICHD), which conducted a rigorous longitudinal study on the effects of childcare on children under 5 (National Institute of Child Health and Human Development 2003).

Over a thousand children were tracked from infancy to kindergarten by investigators at over 20 prominent research universities.

Researchers found that the more time kids spent in non-maternal care during the first 4.5 years of life, the more behavioral problems they developed.

Problems included defiance--like talking back, throwing temper tantrums, and refusing to cooperate. They also included aggressive behaviors--being cruel, destroying toys and other objects, and getting into physical fights.

In addition, kids who spent more time in childcare were rated as less socially competent by their mothers and kindergarten teachers.

What's going on? We might guess that the problem lies with poor quality preschool centers. But when Susanna Loeb's group analyzed their data, they found that middle- and high-income children – who presumably attended better preschools – were among the most affected (Loeb 2007). And another, more recent study of over 6,000 U.S. preschoolers found no correlation between school quality and socioemotional outcomes (Keyes et al 2013).

We might also wonder if the trouble is caused by too much time away from parents. But

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again, the study by Loeb and colleagues doesn't support the idea.

In their data set, kids who received non-parental care outside of childcare centers (for example, those cared for by grandparents or nannies) did *not* suffer increased behavior problems.

So it wasn't the absence of parents that made the difference. It was being enrolled in center-based care (Loeb *et al* 2007).

Two new studies may help us make sense of the puzzle. The first followed the development of 600 American twins. The second analyzed a huge database of over 75,000 toddlers in Norway.

New evidence: Only some kids at risk

The twin study is intriguing. Elliot M. Tucker-Drob and K. Paige Harden (2013) were interested in the development of externalizing behavior problems – defiance, aggression, and antisociality – so they compared kids who did and did not attend preschool. How do genes and environmental forces interact to produce more aggressive, difficult kids?

The researchers found evidence that genes put some kids at higher risk for developing externalizing symptoms. But child outcomes depend on the environment, too: Kids at high genetic risk were more likely to show externalizing behavior problems at age 5 if they had been enrolled in preschool. Preschool attendance was *not* linked with externalizing symptoms among kids with a *low* genetic risk.

This, I think, is good news for people who want to improve the social effects of preschool. Something about *non*-center based care has a protective effect on kids at high genetic risk for developing externalizing behavior problems. If we can figure out what that something is, we'll have a better idea about how to improve preschools.

And here the Norwegian study might help. Henrik D. Zachrisson and his colleagues examined behavioral problems and preschool attendance among children between the ages of 18 and 36 months.

At first glance, the results were depressingly familiar. More hours in center-based care predicted higher levels of bad behavior. But the effect size was much smaller than it was in the U.S. studies, and the link vanished altogether when the researchers tried a new method of analysis: They looked for differences between siblings.



The reasoning went like this. Maybe daycare centers are associated with behavior problems because kids at higher risk for problems are more likely to get placed in center-based care. If so, children within the same family might share similar risk factors, and therefore exhibit similar behavior problems irrespective of the hours they've spent in care. To test the idea, researchers examined families where siblings experienced different amounts of center-based care. They found no link between time spent in daycare and behavior problems (Zachrisson *et al* 2013).

What should we make of this? First, Zachrisson's team found relatively little evidence of increased behavior problems to begin with. Is that because Norway has a superior system of daycare? It's very plausible, as the researchers themselves note. In Norway, but not the United States, children rarely begin center-based care before the age of one. Centers are subject to national standards and regulations, and the ratio of adult caregivers to children is very high. According to the reports I've seen, the schools are play-based and emphasize the development of social skills. Kids spend most of the day outdoors.

So if Zachrisson's team found no evidence that preschool attendance causes behavior problems, that might be because *preschool in Norway is better*. If we want to improve preschool elsewhere, we might look to Norway to see what they are doing right.

But what about the alternative hypothesis? The idea that kids at higher risk for developing behavior problems are more likely to be placed in center-based care? Perhaps this can explain the results of the American studies. Until somebody performs the relevant analysis, we can't be sure. But even if it turns out that preschools receive a disproportionate share of high-risk kids, we're still left with the task of prevention.

The twin study suggests that preschool, as it exists in the United States today, triggers

aggressive behavior in susceptible kids. But we've no reason to think the process is inevitable. As the authors note, "genes for externalizing symptoms" did not increase a child's chances of developing externalizing symptoms by age 5 – not if he didn't attend preschool (Tucker-Drob and Harden 2013).

So what's protective about *non* center-based care? Maybe it's less stressful.

Stressed-out preschoolers

Daycare or preschool stress can be measured by the levels of cortisol—a stress hormone—that children produce during the day. In normal, healthy people, cortisol levels follow a daily rhythm, peaking when they wake and then falling over the course of the day. Cortisol levels are the lowest just before sleep (Sapolsky 2004).



But stress changes the pattern. If you are under stress, your cortisol level rises, regardless of the time of day. In the short term, this helps your body respond to the crisis. But chronic stress, and chronically elevated levels of cortisol, can cause health and developmental problems (Sapolsky 2004).

Because cortisol levels are easy to measure in young children, researchers have collected samples from children who attend daycare and children who stay home. In study after study, the results are the same.

When children stay home, their cortisol levels show the healthy pattern--rising at waking and decreasing throughout the day. When children attend daycare, the pattern changes. Cortisol levels increase during the day (Geoffroy et al 2006).

Although it's not entirely clear what aspects of preschool attendance are distressing kids, some possibilities can be ruled out.

For instance, it's not about being separated from parents. Kids who receive home-based care do not have elevated cortisol levels, even when their parents are absent (Dettling et al 2000). Nor is it about differences in daytime resting. Kids in center-based childcare show atypical cortisol patterns even after taking into account any possible differences in napping or resting opportunities during the day (Watamura et al 2002).

That leaves at least two (non-exclusive) possibilities. First, kids in center-based care may be more distressed because they lack daytime access to a secure attachment figure. It's relatively easy for a child to form an attachment to a nanny or grandparent babysitter. It's much harder to form attachments in a childcare center where staff are overworked, lacking in sensitivity, or subject to frequent turnover.

When children do form such secondary attachments, their stress hormone levels look more normal. In a study of 110 American preschoolers, researchers found that kids with more secure attachments to teachers were more likely to show the normal pattern of cortisol changes across the day (Badanes et al 2012).

The second possibility is that kids are getting stressed out by social interactions with other preschoolers. Megan Gunnar, a University of Minnesota psychobiologist who has studied cortisol levels in preschoolers since the 1990s, has expressed this view.

"There is something about managing a complex peer setting for an extended time that triggers stress in young children"(ResearchWorks 2005).

It's an idea worth exploring.

What's wrong with peer socialization?

The question might sound wrong-headed. Surely we learn social skills by interacting with other people. What could be more natural than letting your preschooler loose in a social world of her own peers?

In fact, part of this reasoning is sound. You do need people to learn people skills. The question is--which people? Preschoolers need to learn self-control, empathy, compassion, patience, social etiquette, and an upbeat, constructive attitude for dealing with social problems.

These lessons can't be learned through peer contact alone. Preschools are populated with impulsive, socially incompetent little people who are prone to sudden fits of rage or despair. Young children have difficulty controlling their emotions, and they are ignorant of the social niceties. They also have less insight into the minds and emotions of others (Gopnik et al 1999).

Yes, preschoolers can offer each other important social experiences. But their developmental status makes them unreliable social tutors. A child who copies other children may pick up good habits—but she may also pick up bad ones. And preschool peers do not always provide each other with right kind of feedback.

When a child offers to share his toy with a caring adult, he gets rewarded with gratitude and praise. He also learns that he will eventually get his toy back. When he offers to share with a peer, he may not get rewarded at all. Such experiences can undermine social development by teaching the wrong lessons.

Moreover, it's hard to see what's natural about herding together a bunch of children who are all the same age. From the evolutionary, historical, and cross-cultural perspectives, it's an unusual practice.

Preschool is an evolutionary novelty

Throughout most of human history, people lived in small foraging bands of around 25 individuals. In such small groups, children rarely had playmates of the same age. Socialization meant interacting with people of all ages, from infants to grandparents (Konner 2005). In modern foraging groups, children play in multi-age playgroups (Hewitt and Lamb 2005) and may be watched over by multiple caregivers, including older sisters and grandmothers (Hrdy 2005).

Even after the rise of agriculture, the "warehousing" of small children would have been rare. Like foraging groups, village-based communities are characterized by multi-aged playgroups and older sibling caregivers. Historically speaking, segregating children by age is a relatively new idea. It is favored in industrialized societies where people lack the support of extended families and parents work outside of the home.

What you can do

Spending long hours in center-based care can cause problems. But that doesn't mean that preschool can't be a positive social experience. In fact, kids benefit from opportunities to play with peers. The key is balancing peer play time with sensitive caregiving. Here are some specific tips on getting the best out of preschool or daycare.

Stay tuned into your child's needs

Time spent in daycare may affect your child's behavior. But it's not the most important factor. The NICHD study found that the most important predictor of social competence was maternal sensitivity. Sensitive mothers are warm and supportive. They understand their children's emotional needs and demonstrate respect for their children's autonomy. According to the NICHD, the kids with the best behavioral outcomes had mothers who scored highly on maternal sensitivity (NICHD 2003).

Remain your child's primary social tutor

[See this article on preschool social skills.](#) These include talking to your child about her emotions and encouraging her to form at least one friendship with a peer at school.

Avoid long hours by combining child-centered care with other quality alternatives

As noted above, there is mixed evidence about the effects of longer hours on children's behavior. They probably depend on many things, including the nature of your child's preschool, his personality, heredity, and your cultural background. Until researchers sort these issues out, concerned parents might take precautions by reducing the number of hours their kids spend in center-based care.

Find classes that are small and intimate

Find caregivers who can give your child warm, individualized, personal attention. According to one study, the least stressful preschool environments were small-scale--classes with no more than 15 students and 4 teachers (Legendre 2003).

It may be possible to create a harmonious, pleasant preschool with a low staff-to-student ratio. Perhaps this happens in places like Japan. But I haven't seen any studies measuring outcomes. Not yet.

Make sure kids have room to play

Look for preschools or daycare centers that provide ample space for kids to play. Adults don't like to be crowded. Neither do kids (Legendre 2003).

Look for teachers who expect friendly, polite behavior

Some schools are more permissive and laissez-faire than others. Avoid schools that let kids get away with angry, antisocial or disobedient behavior.

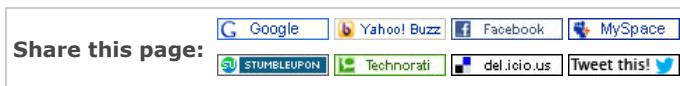
Find out how your child's teachers cope with undesirable behavior

Psychologists like C. Cybele Raver recommend that preschool teachers manage misbehavior in ways that minimize confrontation and coercion (Li-Grining et al 2010). Teachers are advised to use reinforce desirable behavior with praise and encouragement; to ignore inappropriate attention-seeking behavior; to gently redirect kids who are going astray; to give warnings about the consequences of breaking the rules; and to use clear signals for keeping the whole class on task (like turning the lights on and off).

More broadly, psychologists recommend the use of positive or inductive discipline, an approach that emphasizes explaining the reasons for rules and the consequences of bad behavior. Studies suggest that preschoolers exposed to inductive discipline develop more [self-control](#) and better social skills (Hart et al 1992).

Communicate regularly with your childcare providers

Find out what your child is doing at school. If your child is being rejected by his peers--or is involved in rejecting another child--take corrective action (see my article on [preschool social skills](#)). Similarly, get involved if your child is hanging out with a "bad crowd." When preschoolers play in peer groups characterized by negative emotions or anti-social behavior, their social development suffers (Denham et al 2001).



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