

ABSTRACT

Cross-cultural observations indicate that parents occasionally and intentionally deceive their children. Despite the commonness of this behavior, evolutionary research is lacking, and thus the ultimate functions of parent-child deception are under-explored. This work proposes that lying to children may be situationally advantageous over telling the truth under specific fitness related conditions resulting in different themes of parental lies that serve key evolutionary functions, whereby the benefits of the falsehood outweigh the costs of their child believing the lie. We collected data using ethnographic interviews that cataloged stories of the lies parents recall telling their children and those they recall their own parents telling them during childhood. Evolutionary themes (12) of reported parental deceptions (N=819) and topics avoided (N=321) were created following content analysis, with lies coded according to the fitness function of each deceptive category. This study generated data that suggests parents mostly employ lying to maximize trade-offs and allocation of parental investments that save time. Importantly, parents also lie to children in ways that promote their mental and physical health, preserve their access to physical and social resources, and enculturate them into the costly signaling beliefs of their culture.

THE LIES WE TELL OUR CHILDREN

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METHODS

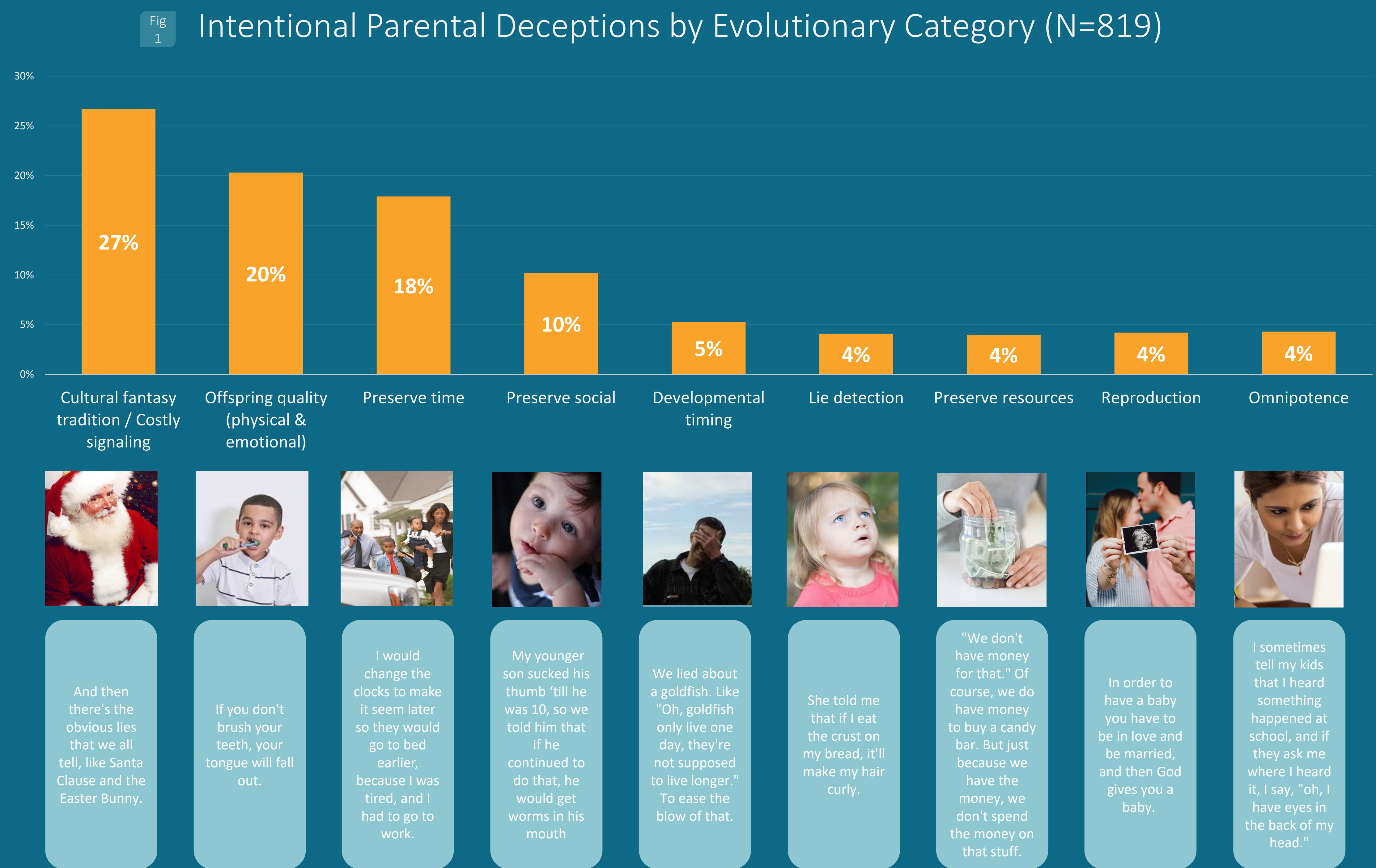
Parents (N=100) with at least 1 child between the ages of 2 and 18 were virtually interviewed regarding the nature of lies they tell their offspring, as well as lies their child may have heard from others or that they had been subject to themselves as children. Participants were recruited via a combination of snowball sampling and advertisements on online parent groups and at schools. Each researcher prompted participants with a randomized sample list of lies (N=16), which was developed prior to data collection and pre-tested alongside interview questions on a set of qualifying adults (N=12) not included in the remainder of the study. Participants were asked a series of probing questions regarding parental deception as well as child age at the time of deception. Each interview was transcribed and edited for accuracy. Codes were developed based on potential adaptive benefits of parental deception and applied as either primary or secondary in their evolutionary benefit. A preliminary codebook was developed before the start of data analysis, which underwent multiple rounds of testing and modification using randomly selected sample excerpts, which were individually coded by all researchers and compared for accuracy. Once a final codebook had been established, researchers coded interviews in pairs. Any disagreement in code application was discussed with the entire team until consensus was reached. Interrater analyses were conducted by two project team leads, who independently coded random sets of original transcripts for both primary (N=162, 20%) and secondary deception categories (N=162, 20%) that were proportionally drawn from each original coder. Interrater comparisons indicated that Kappa = 0.971 with $p < 0.001$ for primary codes and Kappa = .915 with $p < .001$ for secondary codes. These measures of agreement are statistically significant and of outstanding reliability.

RESULTS

Empirical analysis reveals the most common lies (27%) parents tell their children relate to cultural fantasy traditions, such as Santa Claus (Figure 1). These lies function as group costly signals, since they involve collective belief and transmission of imaginary stories and beings, thus bonding group members through shared knowledge distinguishable from other groups. Parents also deceive children in ways that promote physical or cognitive quality of offspring (20%), save time (18%), preserve social (10%) and physical resources (4%), optimize child development (5%), delay reproduction (4%), and shape child behavior when they are not around (4%) (Figure 1). Parents deceive children also through exaggeration of the costs of certain behavioral choices (21%), such as by claiming punishments for social norm violations will be greater than actuality. Chi-square analysis reveals that lie categories significantly differ in frequency by age for some types of lies. Deceptions that preserve family social status were proportionally told more often than expected to older children, while lies that function as either costly signaling or saving time were told more often to young children than would have been expected (Figure 4). Younger children were deceived proportionally more often via lying, while older children were deceived proportionally equally between lying and avoidance (Figure 3). The topics parents most report avoiding (74%) are those related to sex, reproduction, family conflict, and sickness or death (Figure 5).

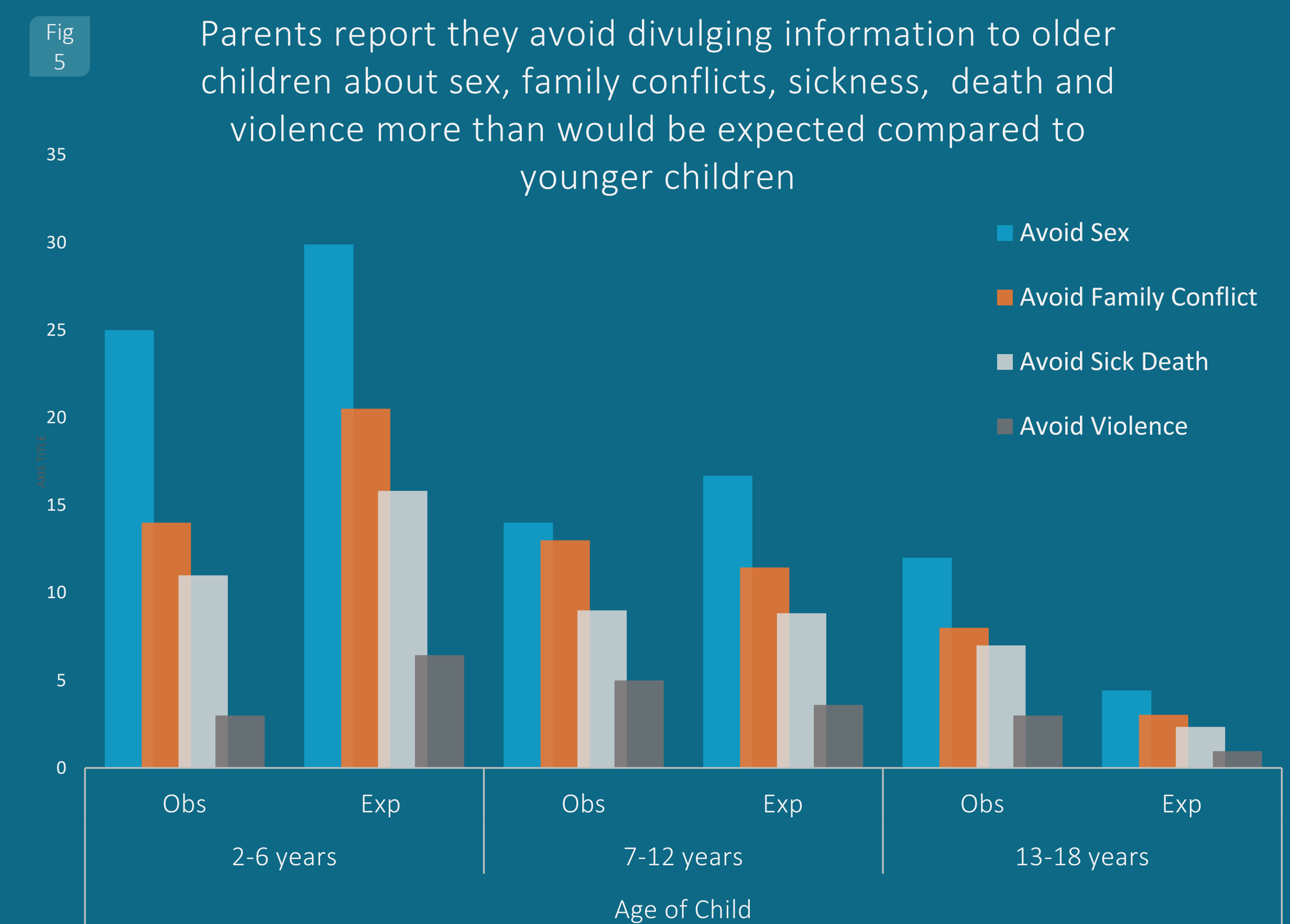
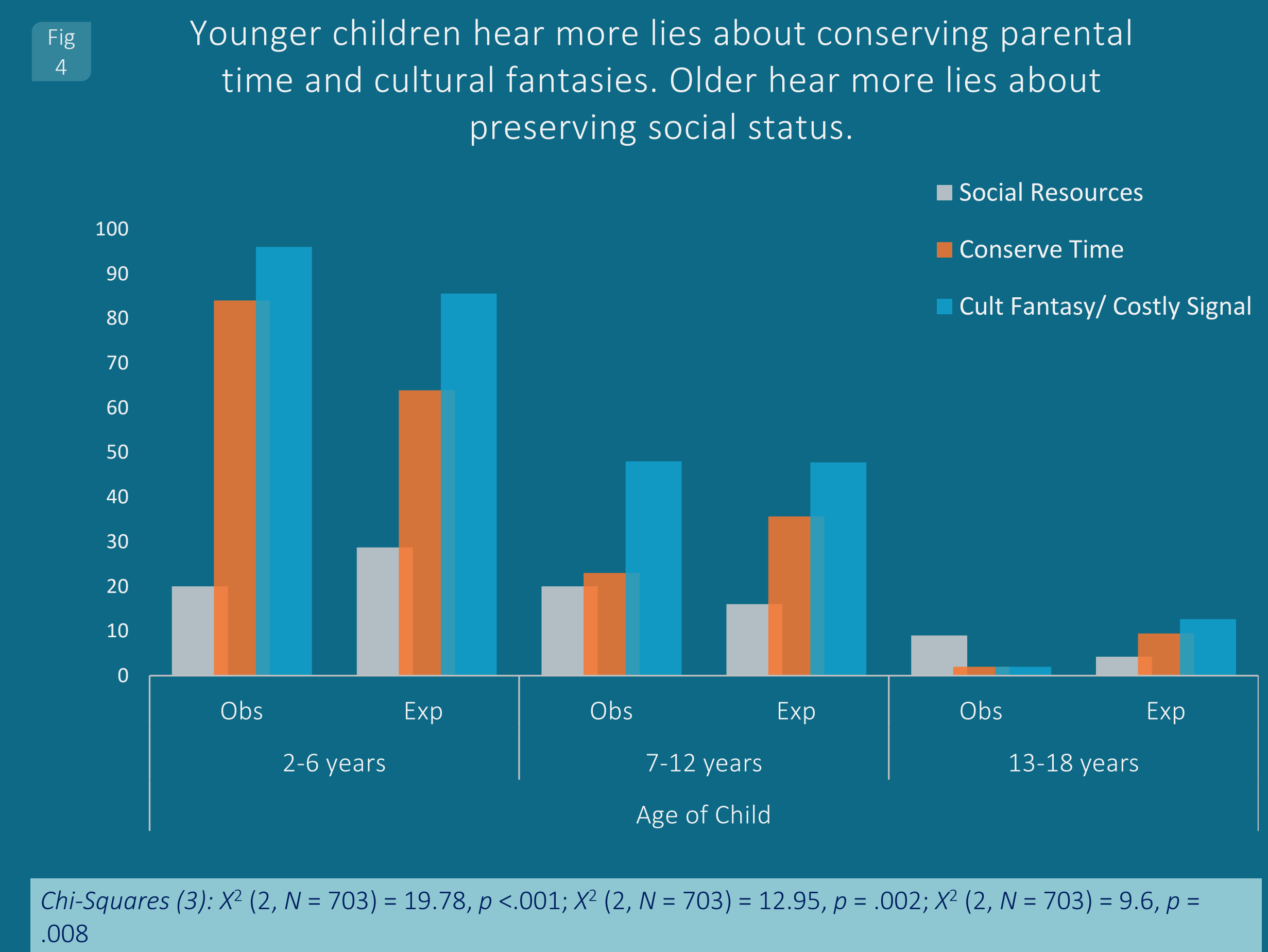
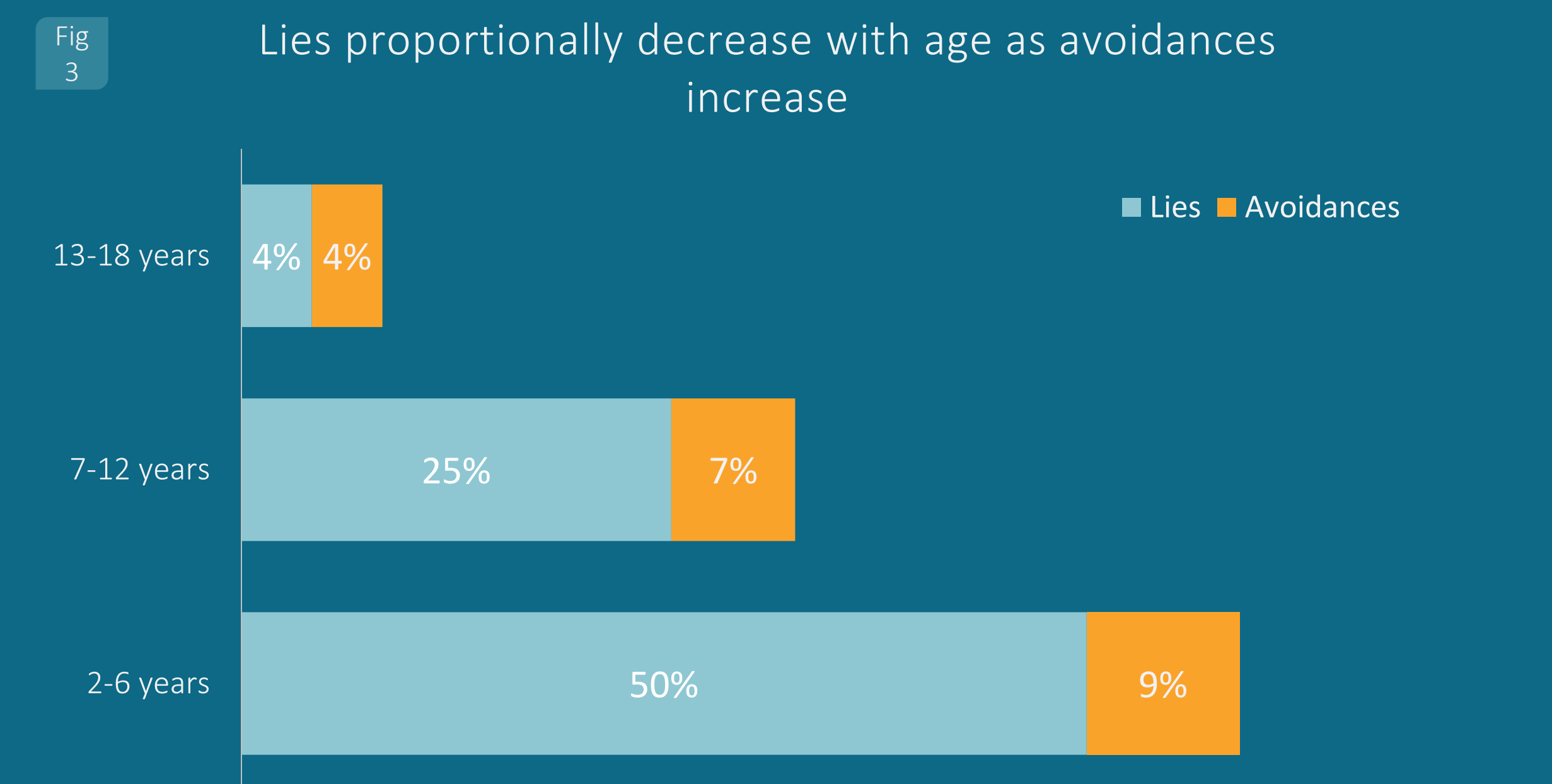
Participants (N=100; women N=80, male N=18, non-binary N=2) were aged 26 to 63 (\bar{x} =44), with between 1 to 5 children (med=2). Ethnic composition of the sample was 77.8% White, 10.1% Multiracial, 5.1% Asian, 5.1% Hispanic/Latinx, and 1.0% Black or African American. Median annual total household income was < \$150,000. 41.4% of participants self-described as Not at All Religious, 43.4% Somewhat Religious, and 15.2% Very Religious.

- Offspring Quality** Parent lies to child to promote child's well-being. Sub divided into emotional and physical wellbeing.
- Cultural Fantasy Tradition / Costly Signaling** Parent tells lies of tradition to child as a form of costly signaling to others that their child is a member of X group.
- Developmental Timing** Parent lies to delay revelation of information to child until a later time, when the child would have an appropriate adaptive response, or when it would be less costly for the child to learn X.
- Preserve Social** Parent lies to protect kinship, friendship, or social relationship/status at cost of child's immediate goals, though not necessarily at cost of child's fitness.
- Preserve Resources** Parent lies to child to preserve parent's access to goods or money. For parent's benefit, at cost of child's immediate goals, though not necessarily at cost of child's fitness.
- Preserve Time** Parent lies to conserve parenting time and associated effort. For parent's benefit, at the cost of child's immediate goals, though not necessarily at cost of child's fitness.
- Lie Detection** Parent lies to child to facilitate child's acquisition of lie detection skill. For young children, this occurs concurrently with the development of theory of mind.
- Reproduction** Parent lies to child regarding the nature of reproduction (including sex, birth, etc.) to delay child's reproductive timing.
- Omnipotence** Parent lies to child by indicating that parent (or another powerful being) knows everything in order to control child's behavior when parent is not present



DISCUSSION

The few studies that address parental deception generally ignore evolutionary benefits and presuppose the behavior as maladaptive towards child development. Results of this study call into question that assumption, showing a broad range of deceptions employed by parents to manage the complex set of tasks involved in rearing costly human offspring. This data hints at varied and distinct fitness-related purposes for parental deception, most notably towards solidifying child group belonging, promoting offspring health and well being, and preserving social relationships and status. When met with increasingly autonomous offspring who employ long developmental trajectories, who lack the physical skills and cognitive abilities necessary to be a successful actor in the human ecological niche, parents may utilize deception to optimize inclusive fitness goals, altering child beliefs in a way that promotes desirable behavior. Future work might seek to examine the phenomena in more varied populations, examining how life history, income, gender, and culture may impact the frequency or type of deceptions employed by parents.



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