

Adult Baby/Diaper Lovers: An Exploratory Study of an Online Community Sample

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Abstract This internet-based study provided descriptive information and exploratory analyses on 1,795 male and 139 female members of the Adult Baby/Diaper Lover (ABDL) community. Based on prior research, some research questions focused on the degree to which ABDL behavior was associated with negative mood states, parental relationships, and attachment style. Based on clinical experience, a second research question focused on discerning two possible subgroups within the ABDL community: persons focused on role play behavior and persons who were primarily interested in sexual arousal in their ABDL behavior. The results showed modest support for the former research questions, but notable support for the last research question. Because of some overlap between the two hypothesized subgroups, additional subgroups may exist. Males in the ABDL community identified their ABDL interests earlier than females and these males may be more focused on sexual aspects of ABDL practices. Both males and females perceived being dominated as important in their ABDL behavior. Most participants were comfortable with their ABDL behavior and reported few problems. ABDL behavior may represent a sexual subculture that is not problematic for most of its participants.

Keywords Adult Baby Diaper Lover · Paraphilia · Infantilism · ABDL · Fetishism

Introduction

Human sexuality is an area in which there are many variations in sexual preferences, expectations, behaviors, and practices. In order to understand and treat individuals exhibiting atypical sexual preferences and behaviors, health care professionals have classified certain sexual deviations as mental disorders or paraphilias. Fetishism in particular is characterized by a period of at least 6 months during which recurrent, intense sexually arousing fantasies, sexual urges, or behaviors involving the use of nonliving objects occur. Fetishism is predominantly exhibited by males (Darcangelo, 2008; Chalkley & Powell, 1983) and common fetish objects are clothing, rubber, footwear, parts of the body (also known as partialism), leather, and other soft materials and objects (Chalkley & Powell, 1983; Kafka, 2010a, 2010b).

Many theories have been proposed to explain the existence of paraphilias, including biological theories (Epstein, 1961; Mitchell, Falconer, & Hill, 1954; Waismann, Fenwick, Wilson, Hewett, & Lumsden, 2003), psychoanalytic ideas (Freud, 1961), and behavioral paradigms (McConaghy, 1974; Rachman & Hodgson, 1968). Money (1986) developed a theory that each person has a lovemap, a template that portrays a person's idealized lover and what that person does in his or her ideal romantic or sexual relationship. This lovemap is not present at birth, but instead differentiates later in development. In the case of fetishism, a person's lovemap is traumatized by deprivation, punishment, or prevention of childhood sexual rehearsal play or early exposure to socially-proscribed sexual behaviors. Culture and socialization may play a large role in sexual preferences, especially given cultural differences in tolerance of specific sexual behaviors (Baumeister, 2000; Wise, 1985). Finally, there is the possibility that fetishism is a natural expression of human variation that has been pathologized by the definition of deviance. Deviance is based on society's value judgments and it changes with sexual liberation movements (Laws & Donohue, 2008). Moser (2005)

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has argued that pathologizing certain sexual behaviors is another way for society to control sexuality; indeed, proscribed sexual acts change over time and vary from culture to culture. Based on this argument, along with his argument that the category of paraphilias is not a distinct, diagnosable mental disorder, Moser has suggested that paraphilias should be completely removed from the DSM.

Although there are many types of fetishism, the current study focused on individuals who wear diapers (voluntarily, not due to medical need) and/or participate in infant-like role play. The latter is known as autonepiophilia or paraphilic infantilism (Money, 1986; see also Money, 1984) or more recently as Adult Baby Syndrome (Pate & Gabbard, 2003; see also Giles, 2012). The DSM lists infantilism under sexual masochism (American Psychiatric Association, 2000). Role-playing behaviors may include, but are not limited to: using diapers, drinking out of a baby bottle, crawling, playing with baby toys, wishing one was a baby, and a desire to be taken care of by a “mommy” or “daddy.” In the psychological literature, there have been several cases of fetishistic diaper-wearing and other infant-like behaviors displayed by adults.

Early case studies of individuals exhibiting these behaviors were reported in the 1960s and 1970s. These cases included a 29-year-old male who wore diapers and rubber pants regularly and would masturbate and urinate while wearing them (Tuchman & Lachman, 1964), that of a 20-year-old male who wore diapers and would orgasm when he defecated in them (Malitz, 1966), a 17-year-old male who wore diapers (also often accompanied with erections and masturbation), ate baby food, and drank from a baby bottle (Dinello, 1967), and a 20-year-old male with brain damage who wore diapers and women’s wigs and drank out of a baby bottle, behaviors that led to erection and ejaculation (Bethell, 1974). More recently, several cases have been reported on men wearing, urinating, and defecating in diapers, but also using baby toys, sucking on pacifiers, crawling, using bottles, sleeping with blankets, and expressing desires to become a baby, be treated like a baby, and have their diapers changed (Croarkin, Nam, & Waldrep, 2004; Evcimen & Gratz, 2006; Kise & Nguyen, 2011; Lehne & Money, 2003; Pandita-Gunawardena, 1990; Pate & Gabbard, 2003; Sanders, 1997). The sexual behaviors associated with some diaper-wearers do not always coincide with those who act like babies; for example, Caldwell (2008) reported a case in which the subject urinated, defecated, and masturbated while wearing diapers, but did not engage in any other baby-like behaviors. Evcimen and Gratz (2006) described a patient who wished to be a baby and wore diapers, but denied using the diapers for any sexual gratification. Although there are not many cases of diaper fetishism/adult babies in the literature, a simple search on the internet suggests that there is a large number of adults who role-play as babies and use items related to infancy, such as diapers. Members of this online community generally refer to themselves as adult babies (AB), those who enjoy role-playing as infants, and diaper lovers

(DL), those who wear diapers voluntarily but may not engage in other baby-like behaviors. As a group, they are referred to as Adult Baby/Diaper Lovers (ABDL).

Given the lack of literature on the ABDL community and the tendency to pathologize such behaviors (Moser, 2005), the purpose of this study was to provide descriptive information on these individuals. Exploratory analyses were also planned to gain a greater understanding of individuals who belong to the ABDL online community. Because fetish behaviors could function to reduce anxiety or negative mood states (Coleman, 2000), one research question focused on the degree to which ABDL behavior was associated with negative mood states. Research has suggested a person’s relationship with or attachment to a parent may relate to ABDL interests (Caldwell, 2008; Dinello, 1967; Malitz, 1966). Per this body of research, greater levels of insecure attachment would typically be associated with greater levels of ABDL behaviors. Thus, a second research question focused on the degree to which attachment to a parent was associated with ABDL behavior. Based on clinical experiences from one of the authors, a third research question focused on discerning two possible subgroups within the ABDL community: persons focused on role play behavior and persons who were primarily interested in sexual arousal in their ABDL behavior.

Method

Participants

The final sample included 1,795 male and 139 female participants. Participants were recruited from community ABDL websites (e.g., diaperspace.com, bedwettingabdl.com, adisc.org). To preserve anonymity, no personally identifying information, including IP addresses, was collected. From the initial 2,849 participants, 69 were deleted because they were younger than 18 years old, 6 were deleted because consent was lacking, 353 were eliminated because only the age and consent form were completed, and 404 were eliminated because no data beyond demographic information were provided. Another 83 were eliminated because they identified as intersex, transsexual, or transgendered individuals. We elected to focus on the males and females only for the current article. A response rate of 73 % was estimated by dividing the approximate number of participants who completed the survey (2,849 minus 353 and 404) by the 2,849 participants who started the survey.

The resulting participants ranged in age from 18 years to over 80 years ($M = 30.7$, $SD = 12.36$). Table 1 shows demographic information by sex. The majority of the participants were males (93 %) who were attracted to females only. Female participants tended to be sexually attracted to both males and females (43 %) or males only (34 %). Regarding household structure, the majority of participants grew up in a two-parent household (male–female) with one brother or sister. Thirteen percent of the male

Table 1 Demographic information by sex

Variable	Males				Females			
	<i>M</i>	<i>SD</i>	<i>n</i>	%	<i>M</i>	<i>SD</i>	<i>n</i>	%
Mean age in years	30.92	(12.54)			26.90	(8.91)		
Sexual orientation								
Sexually attracted to females only			1,043	(58)			24	(17)
Sexually attracted to males only			330	(18)			47	(34)
Sexually attracted to both males and females			339	(19)			60	(43)
Sexually attracted to neither males nor females			83	(5)			8	(6)
Household structure								
Single parent female-headed			236	(13)			33	(24)
Single parent male-headed			35	(2)			4	(3)
Two parent (male–female)			1,501	(84)			100	(72)
Two parent (male–male or female–female)			23	(1)			2	(1)
Mean number of sisters	.81	(.93)			.88	(1.0)		
Mean number of brothers	.90	(1.0)			.74	(.88)		
Highest level of formal education								
Some high school or less			59	(4)			4	(3)
High school diploma or GED			338	(19)			30	(22)
Some college			510	(28)			43	(31)
Two-year college degree			190	(11)			15	(11)
Four-year college degree			362	(20)			17	(12)
Some graduate level coursework			79	(4)			3	(2)
Graduate degree			257	(14)			27	(19)
Mean number of years at current job ^a	6.36	(7.33)			4.59	(5.71)		
Current annual income								
Less than \$25,000			785	(44)			85	(61)
\$25,000–\$49,999			470	(26)			25	(18)
\$50,000–\$74,999			293	(16)			17	(12)
\$75,000–\$99,999			124	(7)			9	(7)
\$100,000 or more			123	(7)			3	(2)

Note For males, $n = 1,795$. For females, $n = 139$

^a $n = 1,390$ for males and $n = 94$ for females

participants ($n = 224$) and 17 % of the female participants ($n = 23$) reported no siblings. The highest level of formal education varied considerably (see Table 1), but most participants had received at least a high school diploma. Income levels ranged from less than \$25,000 per year to over \$100,000 per year, but the largest group of participants among males and females reported making less than \$25,000. Participants with a job ($n = 1,484$) had spent about 6 years at their current position ($M = 6.24$, $SD = 7.24$).

Procedure

With the approval of website administrators, an advertisement with a link to the survey on SurveyMonkey was posted on each participating website. The advertisement requested that viewers complete a survey to help a therapist at the University of Min-

nesota gain more accurate information about the ABDL community. The survey was available for 8 weeks.

Participants were informed that the survey was completely anonymous and confidential, that there was no compensation to completing the survey, and that there was no penalty for stopping at any time during the survey. Participants consented to take part in the study by clicking on the link to the survey, reading a consent form, affirming that they understood the consent form (a yes/no query), and verifying that they were 18 years or older. Early in the survey, another item querying participants' age served as a manipulation check to confirm that the participants were indeed over 18. The survey began with a demographic questionnaire and then moved into specific questions relating to the participants' ABDL interests, desires, behaviors, and fantasies as well as questions regarding how these practices have affected their lives and relationships. Next, participants were asked about their relationships

with their mother and father. Finally, participants completed two additional questionnaires: adult attachment (Wei, Russell, Malinckrodt, & Vogel, 2007) and a shortened version of the Profile of Mood States (Shacham, 1983). At the close of the survey, participants were thanked for their participation.

Measures

Participants were asked to give their age, gender identity, sexual orientation, household structure (i.e., number and gender of parents growing up), and number of siblings. They were also asked their education level, current job, length of time at their current job, and income.

Frequency of ABDL Behaviors

Participants were asked at what age they became interested in ABDL, at what age they started practicing, and how long they had been practicing. They also indicated if they were currently practicing ABDL. Participants were asked how often they wore diapers in a typical day (i.e., hours), week (i.e., days), and month (i.e., days). Using a typical month time frame, participants were also asked how often they practiced ABDL sexual behaviors alone, sexual behaviors alone without ABDL, ABDL sexual behaviors with another person, and sexual behaviors with another person that did not include ABDL.

Relationship Questions

Other questions asked participants to specify the number of their committed romantic relationships in their lifetime, whether or not they were in a current relationship, and how long they had been in their current relationship (if applicable). They were asked if their partner knew about their ABDL interests and how long they had known. Using Likert-type scales, participants indicated how frequently their romantic partner was involved in their ABDL behaviors and how often someone other than their romantic partner was involved in their ABDL behaviors.

Specific ABDL Behaviors and Sexual Stimulation

Participants were asked how frequently they engaged in nine behaviors when practicing ABDL: wetting, messing, using diapers, using other baby items, having a mommy without sex, having a mommy with sex, having a daddy without sex, having a daddy with sex, and playing with baby toys (1 = *Never* to 7 = *All the time*). Focusing on sex, they were asked what sexual activity they liked best: not having sexual activity, having sexual activity alone, or having sexual activity with another person(s). Using the same 7-point Likert-type response format, participants indicated how sexually stimulating they found the following seven targets: an

adult man, an adult woman, diapers, baby clothing, baby toys, other baby items, and non-ABDL sex toys. Participants also reported how important five various aspects of ABDL behavior were to them: the diaper itself, the convenience of a diaper, being dominated or under the control of someone else, being a baby, and sexual excitement related to ABDL.

Parental Relationship

Participants were asked if they were raised with a mother or female caregiver and if they were raised by a father or male caregiver. Relationships of participants with their mothers and fathers were examined using brief Maternal and Paternal Relationship scales designed for this study. These scales examined six dimensions of each relationship. Both the mother and father portions of the questionnaire required that the participant circle the number that corresponded best with how they felt their mothers acted toward them. The scale ranged from 1 to 6 for each of the following anchors: *Detached from me–Involved with me*, *Hostile toward me–Not hostile toward me*, *Rejecting me–Accepting me*, *Controlling me–Non-controlling*, *Unfair with me–Fair toward me*, *Not caring toward me–Caring toward me*. Higher mean scores reflected a more positive relationship with the parent. In this study, the internal consistency for the Maternal Relationship scale was .89 and for the Paternal Relationship scale was .91.

Attachment Scale

Adult attachment was measured by the Experiences in Close Relationships Scale (ECR)- Short Form (Wei et al., 2007). This 12-item questionnaire measured adult attachment based on two dimensions: attachment anxiety and attachment avoidance. Each subscale has six items. Participants were given statements such as: “I want to get close to my partner, but I keep pulling back” (attachment avoidance) and “I get frustrated if romantic partners are not available when I need them” (attachment anxiety). Participants indicated their agreement with each of these statements on a 7-point Likert scale ranging from 1 (*Strongly disagree*) to 7 (*Strongly agree*). Scores were averaged separately to create a final score for each attachment style. Higher scores reflected higher levels of attachment anxiety and avoidance, respectively. Low levels of both attachment anxiety and attachment avoidance indicated secure attachment. Prior research showed that these scales have strong psychometric properties (Wei et al., 2007). In this study, the internal consistency for attachment anxiety was .68 and for attachment avoidance was .69.

Mood States

Mood states were measured using Shacham’s (1983) shortened version of the Profile of Mood States (POMS). Thirty-seven items were used to measure six separate factors: Tension-Anxiety, Depression-Dejection, Anger-Hostility, Fatigue-Inertia,

Vigor-Activity, and Confusion-Bewilderment. Participants responded to each item based upon how they had been feeling the past week, including that day. Responses were on a 5-point Likert scale ranging from 1 (*Not at all*) to 5 (*Extremely*). To obtain a total score, subscales were added together (with the exception of Vigor-Activity, which was subtracted). Higher total scores reflected higher mood disturbance. The internal consistency for the overall scale in this study was .94.

Opinions and Perceived Problems

Using a Likert-type response format (1 = *Strongly Disagree* to 7 = *Strongly Agree*), participants were asked to give their level of agreement with three statements: “I enjoy being treated like a baby,” “I enjoy sexual activity as a part of my ABDL practices,” and “I am comfortable with my ABDL practices.” Using the same Likert-type response format, participants were asked their level of agreement with statements that one is born with ABDL sexual interests, one learns ABDL sexual interests, ABDL interests are related to something in childhood, and ABDL interests are related to toilet training.

To explore possible problems, participants were asked how many times in their life they had tried to stop their ABDL behaviors; if ABDL had interfered with a romantic relationship; if someone had suggested that they get help to stop, control, or manage their ABDL behaviors; if ABDL had interfered with their job, social life or other important areas of functioning; and if they had seen a therapist for ABDL behaviors. They were also asked if there was ever a period of more than 6 months that ABDL interests had caused significant problems and distress their lives (e.g., professionally, socially, legally, relationally, etc.). Participants were asked if they felt they would be able to stop their ABDL interests or behaviors if they wanted to do so. Finally, they were asked how they viewed the ABDL aspects of their life (1 = *negatively* to 7 = *positively*).

Statistical Analysis

Sex differences were examined using multivariate analyses of variance, correlational analyses were used to examine the first two research questions, and both types of analyses were used to examine the third research question. Due to the large number of participants and analyses, the criterion for statistical significance was set at .01.

Results

Frequency and Duration of ABDL

Initial analyses were conducted to explore sex differences in variables related to the frequency and duration of ABDL

behaviors. About 91 % of the male participants ($n = 1,631$) and 86 % of the female participants ($n = 120$) indicated that they were currently practicing ABDL behaviors. A MANOVA was conducted with sex as the independent variable and the following three dependent variables: the age participants became interested in ABDL fantasies or behaviors, the age participants started to practice ABDL behaviors, and the number of years the participants had been practicing ABDL behaviors. The overall MANOVA was significant, Wilks' $\lambda = .99$, $F(3, 1,929) = 7.03$, $p < .001$, $\eta^2 = .01$. Power to detect the effect was .93. Comparisons of the means showed that, when compared to female participants, males reported an earlier age of interest in, earlier age of starting, and more years of practicing ABDL behavior (see Table 2). A second MANOVA was conducted with sex as the independent variable and the following three dependent variables: frequency of wearing diapers in a typical day (i.e., hours), week (i.e., days), and month (i.e., days). Using the .01 criterion, the overall MANOVA was not significant, Wilks' $\lambda = .99$, $F(3, 1,291) = 2.53$, $p < .057$, $\eta^2 = .01$. Power to detect the effect was .39. The means suggest that, when compared to males, females reported wearing diapers more frequently in a typical day, week, and month (see Table 2).

A third MANOVA was conducted with sex as the independent variable and the following two dependent variables: frequency of practicing ABDL sexual behaviors alone in a typical month and frequency of ABDL sexual behaviors with another person in a typical month. The dependent variables were correlated ($r = .35$, $p < .001$, $n = 1,165$). The overall MANOVA was not significant, Wilks' $\lambda = .99$, $F(2, 1,162) < 1$, $\eta^2 = .00$. Power to detect the effect was .08. Male and female participants reported similar frequencies of ABDL behaviors alone and with a partner in a typical month (see Table 2).

A MANOVA was conducted with sex as the independent variable and the following two dependent variables: frequency of practicing sexual behaviors alone without ABDL in a typical month and frequency of sexual behaviors with another person without ABDL in a typical month. The dependent variables were correlated ($r = .27$, $p < .001$, $n = 1,383$). The overall MANOVA was not significant, Wilks' $\lambda = .99$, $F(2, 1,380) = 2.18$, $p < .12$, $\eta^2 = .00$. Power to detect the effect was .23. Male and female participants reported similar frequencies of non-ABDL sexual behaviors alone and with a partner in a typical month (see Table 2).

When asked what type of sexual activity they liked best, 72 % of male participants ($n = 1,160$) indicated that they preferred having sexual activity with another partner, 20 % ($n = 328$) endorsed having sexual activity alone, and 8 % ($n = 126$) chose not having sexual activity. A similar pattern was evident for female participants, with 62 % ($n = 79$) preferring having sexual activity with another partner, 24 % ($n = 30$) favoring sexual activity alone, and 14 % ($n = 18$) endorsing not having sexual activity.

Table 2 Means and SDs of Adult Baby Diaper Lover (ABDL) variables by sex

ABDL variable	Males		Females	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Mean age first interested in ABDL (in years)	10.69**	(6.46)	12.24	(7.57)
Mean age first practiced ABDL (in years)	13.44**	(7.03)	15.77	(7.51)
Mean number of years practicing ABDL	17.05**	(17.19)	11.83	(17.65)
Hours per day of wearing diaper	9.90	(7.64)	12.09	(8.70)
Days per week of wearing diaper	4.09	(2.25)	4.72	(2.24)
Days per month of wearing diaper	3.95	(0.86)	4.17	(0.86)
Alone, ABDL sexual behaviors	12.08	(10.05)	11.13	(10.33)
Alone, sexual behaviors, no ABDL	11.46	(9.87)	9.80	(9.40)
With a person, ABDL sexual behaviors	4.64	(7.49)	5.26	(8.32)
With a person, sexual behaviors, no ABDL	6.49	(7.77)	7.06	(8.83)

Note For males, $n = 1,794$. For females, $n = 139$. The final four ABDL variables refer to the self-reported number of times the behavior occurred in a typical month. Means with a double asterisk have $p < .01$ and denote a sex difference

Relationship Variables

About 49 % of the male participants ($n = 887$) and 47 % of the female participants ($n = 65$) indicated that they were currently in a romantic relationship. An ANOVA was conducted with sex as the independent variable and the number of lifetime committed romantic relationships as the dependent variable. The ANOVA was not significant, $F(1, 1,931) = 1.28$, $\eta^2 = .001$. Power to detect the effect was .07. Male and female participants reported similar numbers of lifetime committed romantic relationships (see Table 3).

Of those in a relationship, a high percentage of both male ($n = 697$, 79 %) and female ($n = 54$, 83 %) participants indicated that their current romantic partner knew about their ABDL interests or behaviors. A MANOVA was conducted with sex as the independent variable and the following two dependent variables: the number of years participants were in their current or most recent relationship and the number of years the participants' current or most recent partner knew about their ABDL interests or behaviors. The dependent variables were strongly correlated ($r = .86$, $p < .001$, $n = 938$). The overall MANOVA was not significant, Wilks' $\lambda = .99$, $F(2, 935) = 3.05$, $p < .049$, $\eta^2 = .01$. Power to detect the effect was .35. Compared to female participants, males reported more years of being in their current or most recent relationship and more years of their current or most recent partner knowing about their ABDL interests or behavior, but these differences were not statistically significant using the .01 criterion (see Table 3).

Table 3 Means and SDs of relationship variables by sex

Relationship variable	Males			Females		
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>
Mean number of lifetime romantic relationships	2.26	(2.23)	1,794	2.48	(2.66)	139
Mean number of years in romantic relationship ^a	8.03	(9.36)	875	5.08	(5.70)	63
Mean number of years partner knows about ABDL ^a	6.50	(7.61)	875	4.52	(4.76)	63
Partner involved in ABDL behaviors ^a	2.26**	(1.36)	1,139	2.90	(1.70)	84
Non-partner involved in ABDL behaviors ^b	1.56*	(0.94)	1,139	1.81	(1.16)	84

ABDL Adult Baby Diaper Lover. The final two variables used a Likert-type response scale with higher numbers reflecting greater frequency. Means with a single asterisk have $p < .05$ and a double asterisk have $p < .01$ and denote a sex difference

^a Refers to current or most recent partner

^b Refers to if currently in a relationship, how often a non-partner is involved

A MANOVA was conducted with sex as the independent variable and two dependent variables: frequency of their current or most romantic partner being involved in their ABDL behaviors and frequency of someone other than the current romantic partner being involved in their ABDL behaviors. The dependent variables were correlated ($r = .32$, $p < .001$, $n = 1,223$). The overall MANOVA was significant, Wilks' $\lambda = .99$, $F(2, 1,220) = 8.98$, $p < .001$, $\eta^2 = .01$. Power to detect the effect was .91. When compared to male participants, females reported greater frequency of their current or most romantic partner being involved in their ABDL behaviors, but the difference in frequencies of someone other than their current romantic partner being involved in their ABDL behaviors was not statistically significant at the .01 level (see Table 3).

Sex Differences and Specific ABDL Behaviors

Sex differences were also examined among specific ABDL behaviors. A MANOVA was conducted with sex as the independent variable and the following nine ABDL practices as dependent variables: wetting, messing, using diapers, using other baby items, having a mommy without sex, having a mommy with sex, having a daddy without sex, having a daddy with sex, and playing with baby toys. The dependent variables were correlated. The overall MANOVA was significant, Wilks' $\lambda = .93$, $F(9, 1,731) = 15.49$, $p < .001$, $\eta^2 = .08$. Power to detect the effect was 1.0. Follow-up comparisons showed four significantly different means at the .01 level (see Table 4). Male participants reported more frequent use of diapers in ABDL behavior than female participants. Female participants reported having a daddy without sex, having a daddy with

Table 4 Gender differences among specific AB DL behaviors

	Male		Female	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
When you practice AB DL, how often do you engage in the following behaviors?				
Wetting	5.90*	(1.54)	5.60	(1.86)
Messing	3.00	(1.88)	3.18	(2.22)
Using diapers	6.16**	(1.43)	5.46	(1.90)
Using other baby items	3.67*	(2.16)	4.12	(2.12)
Mommy, no sex	1.48*	(1.16)	1.73	(1.61)
Mommy, with sex	1.53	(1.24)	1.56	(1.42)
Daddy, no sex	1.31**	(0.91)	2.02	(1.77)
Daddy, with sex	1.35**	(1.05)	2.17	(1.93)
Play with baby toys	2.05**	(1.59)	3.02	(1.58)
How sexually stimulating do you find the following?				
Diapers	5.86**	(1.42)	5.00	(1.86)
Other baby items	3.33	(2.03)	3.03	(1.93)
Baby clothing	3.14*	(2.10)	2.70	(1.87)
Baby toys	2.15	(1.67)	2.13	(1.65)
Non-AB DL sex toys	3.93	(1.94)	4.23	(1.92)
How important to you are each of the following AB DL aspects?				
The diaper itself	6.22**	(1.11)	5.77	(1.58)
Convenience of a diaper	5.05*	(1.78)	6.68	(1.98)
Being dominated	3.84**	(2.23)	4.54	(2.27)
Being a baby	3.42**	(2.16)	4.18	(2.16)
Sexual excitement	4.70**	(1.92)	4.14	(2.16)

Note For males, $n = 1,614$. For females, $n = 127$. Means with a single asterisk have $p < .05$ and a double asterisk have $p < .01$ and denote a sex difference. All items had a 7-point Likert-type response format with higher mean scores reflecting greater frequency, sexual stimulation, or importance

sex, and playing with baby toys in their AB DL behaviors more frequently than male participants.

Another MANOVA was conducted with sex as the independent variable and five dependent variables: how sexually stimulating participants found diapers, baby clothing, baby toys, other baby items, and non-AB DL sex toys. The dependent variables were correlated. The overall MANOVA was significant, Wilks' $\lambda = .97$, $F(5, 1,735) = 11.27$, $p < .001$, $\eta^2 = .03$. Power to detect the effect was 1.0. Only one pair of means was statistically different at the .01 level. Compared to female participants, males reported higher levels of sexual stimulation to diapers.

A third MANOVA was conducted with sex as the independent variable and five dependent variables, which included how important five various aspects of AB DL behavior were to participants: the diaper itself, the convenience of a diaper, being dominated or under the control of someone else, being a baby, and sexual excitement related to AB DL. The dependent variables were correlated. The overall MANOVA was significant, Wilks' $\lambda = .97$, $F(5, 1,735) = 10.72$, $p < .001$, $\eta^2 = .03$. Power to detect the effect was 1.0. Four pairs of means were statistically different at the .01

level (see Table 4). When compared to female participants, male participants reported greater levels of perceived importance regarding the diaper itself as well as sexual excitement in AB DL behavior. Female participants reported greater levels of perceived importance with respect to being dominated and to being a baby in their AB DL behaviors when compared to male participants.

Mood States and AB DL Behavior

To examine the first research question, specific AB DL behaviors were correlated with the POMS total score. In general, these correlations were small and not statistically significant at the .01 level (see Table 5). For male participants, higher scores on the overall POMS (i.e., greater levels of mood disturbance) were significantly associated with greater frequency of playing with baby toys during AB DL and greater perceived importance of being a baby. For female participants, lower scores on the overall POMS (i.e., lower levels of mood disturbance) were significantly associated with greater frequency of using diapers during AB DL.

Attachment and ABDL Behavior

To examine the second research question, specific ABDL behaviors were correlated with the total scores from the anxious attachment and avoidant attachment subscales of the ECR. Most of these correlations were small and many were not statistically significant at the .01 level, particularly for the females participants on both attachment measures (see Table 5).

For male participants, higher levels of anxious attachment were significantly associated with the following nine variables: greater frequency of using other baby items, having a daddy with sexual activity, and playing with baby toys during ABDL; greater likelihood of finding an adult woman, other baby items, baby clothing, and baby toys sexually stimulating; and greater perceived importance of both being dominated and being a baby. For female participants, lower levels of avoidant attachment were significantly associated with the following seven variables: greater frequency of having a mommy without sexual activity, and having a mommy with sexual activity during ABDL; greater likelihood of

finding an adult woman, diapers, and non-ABDL sex toys sexually stimulating; and greater perceived importance of the diaper itself and sexual excitement as a part of ABDL behavior.

Parental Relationships and ABDL Behavior

To examine the second research question further, specific ABDL behaviors were correlated with the total scores from the Maternal Relationship and Parental Relationship scales. Most of these correlations were small and many were not statistically significant at the .01 level, particularly for the females participants on both parental measures (see Table 6). For male participants, higher levels of a negative Maternal Relationship were significantly associated with greater frequency of having a mommy without sexual activity and having a mommy with sexual activity during ABDL. Higher levels of a positive Maternal Relationship were significantly associated with a greater likelihood of finding diapers sexually stimulating and increased perceived importance of sexual excitement as a part of ABDL behavior.

Table 5 Correlations of mood states and attachment measures with specific Adult Baby Diaper Lover (ABDL) behaviors

<i>n</i>	Profile of mood states		Attachment anxiety		Attachment avoidance	
	Males 1,413	Females 111	Males 1,468	Females 113	Males 1,468	Females 113
When you practice ABDL, how often do you engage in the following behaviors?						
Wetting	-.05	-.20*	-.02	-.11	-.01	-.05
Messing	.00	-.17	.01	-.10	.04	.04
Using diapers	-.03	-.24**	-.02	-.15	-.01	-.10
Using other baby items	.05	-.07	.11**	.15	.03	-.04
Mommy, no sex	.03	-.13	-.01	-.05	-.09**	-.03
Mommy, with sex	.02	-.04	-.07*	.03	-.17**	-.05
Daddy, no sex	-.00	-.09	.05*	.04	-.02	-.19*
Daddy, with sex	-.02	-.04	.08**	-.02	-.01	-.18*
Play with baby toys	.07**	-.06	.09**	.12	-.00	-.04
How sexually stimulating do you find the following?						
Adult man	-.01	-.07	.06*	-.04	-.01	-.22*
Adult woman	-.03	.07	-.11**	.04	-.13**	-.08
Diapers	.01	.15	.02	.15	-.09**	.06
Other baby items	.03	.11	.11**	.18	.02	.15
Baby clothing	.04	.05	.11**	.15	.03	.07
Baby toys	.06*	.06	.13**	.17	.02	.15
Non-ABDL sex toys	-.01	.06	-.03	.13	-.13**	-.13
How important to you are each of the following ABDL aspects?						
The diaper itself	.03	-.17	-.01	.00	-.08**	-.08
Convenience of a diaper	.02	-.20*	.02	-.14	.00	-.06
Being dominated	.03	.08	.08**	.09	-.06*	-.20*
Being a baby	.12**	.13	.16**	.22*	.03	.05
Sexual excitement	.00	.07	.02	.10	-.12**	-.07

Note Correlations with a single asterisk have $p < .05$ and a double asterisk have $p < .01$. All items were scored in a positive direction

Also for male participants, higher levels of a negative Paternal Relationship were significantly associated with the following four variables: greater frequency of using other baby items, having a mommy without sexual activity, having a daddy with sexual activity, and playing with baby toys during ABDL. Higher levels of a positive Paternal Relationship were significantly associated with a decreased likelihood of finding an adult man sexually stimulating. Higher levels of a positive Paternal Relationship were also significantly associated with increased likelihood of finding an adult woman and diapers sexually stimulating, decreased perceived importance of being a baby as a part of ABDL behavior, and increased perceived importance of sexual excitement as a part of ABDL behavior (see Table 6).

Role Playing Versus Sexual Motivation

Several analyses were performed to address the third research question. Two survey questions were used to discern the two possible subgroups: the statements “I enjoy being treated like a baby” (i.e., role play enjoyment) and “I enjoy sexual activity as a part of

my ABDL behavior” (i.e., sexual enjoyment). For the overall sample, there was not a significant correlation between responses to the two statements ($r = .04, p > .079, n = 1,687$). Two ANOVAs were conducted with sex as the independent variable and each question as the respective dependent variables. The analysis with role play enjoyment as the dependent variable was statistically significant, $F(1, 1,685) = 15.74, p < .001, \eta^2 = .01$. Power to detect the effect was .92. Female participants reported significantly higher levels of role play enjoyment ($M = 5.20, SD = 1.96$) than male participants ($M = 4.41, SD = 2.15$). The analysis with sexual enjoyment as the dependent variable was also statistically significant, $F(1, 1,685) = 10.22, p < .002, \eta^2 = .01$. Power to detect the effect was .73. Male participants reported significantly higher levels of sexual enjoyment ($M = 5.32, SD = 1.75$) than female participants ($M = 4.79, SD = 2.07$).

To continue exploring the third research question, the role play enjoyment and sexual enjoyment questions were correlated with specific ABDL behaviors by sex (see Table 7). For male participants, greater levels of role play enjoyment were significantly correlated with all nine types of specific ABDL behaviors.

Table 6 Correlations between parental relationships and Adult Baby Diaper Lover (ABDL) behaviors

<i>n</i>	Maternal relationship		Paternal relationship	
	Males 1,496	Females 115	Males 1,487	Females 113
When you practice ABDL, how often do you engage in the following behaviors?				
Wetting	-.02	.02	-.02	-.14
Messing	-.00	-.04	-.00	-.03
Using diapers	-.03	.12	-.03	-.02
Using other baby items	-.04	.04	-.08**	-.14
Mommy, no sex	-.09**	.06	-.13**	-.13
Mommy, with sex	-.10**	-.06	-.06*	-.15
Daddy, no sex	.02	-.02	-.05*	-.06
Daddy, with sex	-.01	-.17	-.09**	-.19*
Play with baby toys	-.03	.08	-.13**	-.11
How sexually stimulating do you find the following?				
Adult man	.01	-.18	-.07**	.00
Adult woman	.02	-.04	.08**	.01
Diapers	.09**	-.16	.07**	.08
Other baby items	.00	-.08	-.05	.07
Baby clothing	.03	-.01	-.03	.02
Baby toys	.03	-.00	-.05*	.00
Non-ABDL sex toys	.04	-.24*	.02	.03
How important to you are each of the following ABDL aspects?				
The diaper itself	.03	.01	.01	.01
Convenience of a diaper	-.07*	.09	.05	.18
Being dominated	-.0	-.14	-.06*	-.14
Being a baby	-.04	-.08	-.12**	-.13
Sexual excitement	.08**	-.19*	.08**	.05

Note Correlations with a single asterisk have $p < .05$ and a double asterisk have $p < .01$. All items were scored in a positive direction

Table 7 Correlations of role play and sexual enjoyment statements with Adult Baby Diaper Lover (ABDL) variables

<i>n</i>	I enjoy being treated like a baby		I enjoy sexual activity as a part of my ABDL behavior	
	Males 1,565	Females 122	Males 1,565	Females 122
When you practice ABDL, how often do you engage in the following behaviors?				
Wetting	.13**	-.03	-.02	.04
Messing	.14**	.14	-.00	-.07
Using diapers	.13**	.09	.02	.06
Using other baby items	.58**	.50**	-.10**	-.05
Mommy, no sex	.31**	.23*	-.06*	-.03
Mommy, with sex	.22**	.13	.17**	.16
Daddy, no sex	.23**	.33**	-.05*	.04
Daddy, with sex	.19**	.29**	.10**	.28**
Play with baby toys	.50**	.57**	-.11**	-.14
How sexually stimulating do you find the following?				
Adult man	.08**	.03	.07**	.33**
Adult woman	-.05*	-.02	.11**	.22*
Diapers	.06*	.01	.50**	.56**
Other baby items	.51**	.34**	.19**	.20*
Baby clothing	.53**	.42**	.17**	.21*
Baby toys	.45**	.38**	.10**	.10
Non-ABDL sex toys	.08**	.01	.26**	.39**
How important to you are each of the following ABDL aspects?				
The diaper itself	.14**	.25**	.15**	.14
Convenience of a diaper	.09**	-.02	-.03	-.10
Being dominated	.49**	.32**	.16**	.25**
Being a baby	.76**	.75**	-.04	-.07*
Sexual excitement	.04	-.02	.67**	.77**

Note Correlations with a single asterisk have $p < .05$ and a double asterisk have $p < .01$. All items were scored in a positive direction

A similar pattern was evident for female participants, but greater levels of role play enjoyment were significantly correlated with a greater frequency of only four types of specific ABDL behaviors: using other baby items, having a daddy without sex, having a daddy with sex, and playing with baby toys.

Greater levels of role play enjoyment were also significantly correlated with a greater likelihood of finding the following five variables sexually stimulating for male participants: an adult man, other baby items, baby clothing, baby toys, and non-ABDL sex toys. For female participants, greater levels of role play enjoyment were significantly correlated with a greater likelihood of finding the following three variables sexually stimulating: other baby items, baby clothing, and baby toys.

Finally, for male participants, greater levels of role play enjoyment were significantly correlated with a greater perceived importance of the diaper itself, the convenience of a diaper, being dominated, and being a baby as a part of ABDL. For female participants, greater levels of role play enjoyment were significantly correlated with a greater perceived importance of the diaper itself, being dominated, and being a baby as a part of ABDL. For both

male and female participants, role play enjoyment was not significantly correlated with perceived importance of sexual excitement as a part of ABDL (see Table 7).

The next set of correlations focused on the sexual enjoyment variable. Greater levels of sexual enjoyment were significantly correlated with all four types of specific ABDL behaviors: less use of other baby items, more frequent involvement of a mommy with sexual activity, more frequent involvement of a daddy with sexual activity, and less play with baby toys. In contrast, for female participants, greater levels of sexual enjoyment were significantly correlated with one type of specific ABDL behaviors: more frequent involvement of a daddy with sexual activity.

Greater levels of sexual enjoyment were significantly correlated with a greater likelihood of finding all seven variables sexually stimulating for male participants (see Table 7). For female participants, greater levels of sexual enjoyment were significantly correlated with a greater likelihood of finding an adult man, diapers, and non-ABDL sex toys sexually stimulating.

For male participants, greater levels of sexual enjoyment were significantly correlated with a greater perceived importance of

Table 8 Means and SDs of opinion and perceived problem variables by sex

Variable	Males		Females	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
I was born with my sexual interests in ABDL	4.19	(1.82)	3.82	(1.98)
I learned my sexual interests in ABDL	4.26	(1.79)	3.90	(1.92)
ABDL interests are related to something in childhood	4.82	(1.71)	4.68	(1.75)
ABDL interests are related to toilet training	3.69	(1.61)	3.56	(1.69)
Times tried to stop ABDL	6.35	(16.75)	5.72	(18.37)
Times ABDL interfered with romantic relationship	1.99	(10.21)	0.53	(2.10)
Times someone suggested getting help to stop, control	1.56	(8.41)	1.55	(9.66)
Times ABDL interfered with functioning	3.66	(16.24)	1.45	(9.58)
Times seen a therapist for ABDL	0.90	(6.85)	0.54	(4.63)
I am comfortable with my ABDL practices ^a	5.47	(1.55)	5.58	(1.66)
How do you view the ABDL aspects of your life ^a	4.84	(1.32)	5.08	(1.46)

Note The first four variables have $n = 1,565$ for males and $n = 122$ for females. Higher means reflect greater agreement with the statement (1 = Strongly Disagree to 7 = Strongly Agree). The other seven variables have $n = 1,540$ for males and $n = 117$ for females. Participants self-reported a number for variables five through nine. The tenth variable (1 = Strongly Disagree to 7 = Strongly Agree) and the eleventh variable (1 = Extremely Negatively to 7 = Extremely Positively) had Likert-type response scales

^a Higher scores indicate greater comfort with or a more positive view of ABDL

the diaper itself, being dominated, and sexual excitement. For female participants, greater levels of sexual enjoyment were significantly correlated with a greater perceived importance of being dominated and sexual excitement.

Opinions on ABDL Behavior and Perceived Problems

A MANOVA was conducted with sex as the independent variable and the following four dependent variables: level of agreement with statements that one is born with ABDL sexual interests, one learns ABDL sexual interests, ABDL interests are related to something in childhood, and ABDL interests are related to toilet training. The dependent variables were correlated. The overall MANOVA was not significant at the .01 level, Wilks' $\lambda = .99$, $F(4, 1,682) = 2.89$, $p < .022$, $\eta^2 = .01$. Power to detect the effect was .57. The means suggest that males reported higher levels of agreement with these statements when compared to females (see Table 8).

When asked if there was ever a period of more than 6 months that ABDL interests had caused significant problems and distress their lives, about 87 % of male participants ($n = 1,540$) and 91 % of female participants ($n = 117$) responded "No." A second MANOVA was conducted with sex as the independent variable and five dependent variables. The dependent variables were the number of times in their lifetime participants had tried to stop their ABDL behaviors, ABDL had interfered with a romantic relationship, someone had suggested that they get help (i.e., to stop, control, or manage their ABDL behaviors), ABDL had interfered with their job, social life or other important areas of

functioning, and they had seen a therapist for ABDL behaviors. The dependent variables were correlated. The overall MANOVA was not significant, Wilks' $\lambda = .99$, $F(5, 1,651) < 1$, $\eta^2 = .00$. Power to detect the effect was .11. The means varied and had large SDs (see Table 8). When asked if they felt they would be able to stop their ABDL interests or behaviors if they wanted to do so, about 65 % of male participants ($n = 1,540$) and 58 % of female participants ($n = 117$) responded "No."

Responses to the two statements "I am comfortable with my ABDL practices" and "How do you view the ABDL aspects of your life" (1 = extremely negatively to 7 = extremely positively) were strongly correlated ($r = .59$, $p < .001$, $n = 1,657$). A MANOVA was conducted with sex as the independent variable and the aforementioned two statements as dependent variables. The overall MANOVA was not significant, Wilks' $\lambda = .99$, $F(2, 1,654) = 1.76$, $\eta^2 = .00$. Power to detect the effect was .17 (see Table 8).

Discussion

This was an exploratory study of individuals who belong to the ABDL online community. There were three main research questions: Was ABDL behavior associated with negative mood states? Was ABDL behavior related to attachment style or parental relationships? Were there two subgroups within the ABDL community (i.e., persons focused on role play behavior and persons who were primarily interested in sexual arousal in their ABDL behavior)? The results showed little support for the first research

question, modest support for the second research question, and good support for the third research question.

The demographics for this sample were generally unremarkable although there was no comparison group to discern if the sample was as average as persons who do not belong to an online ABDL community. One exception may be the diversity of sexual orientation in this sample. Estimates of sexual minorities in North American cities are as large as 15.4 % in San Francisco (Gates, 2006), but in this study's sample, 37 % of the male participants and 60 % of the female participants were sexually attracted to the same sex or both sexes. This fits with other research that has shown a higher prevalence of sexual minorities in a sexual subculture (Richters, de Visser, Rissel, Grulich, & Smith, 2008). Thus, there may be greater sexual diversity within the ABDL online community than in the general population.

About half of the sample reported that they were currently in a relationship and the majority of their current romantic partners knew about their ABDL behavior. Despite this, the data indicated that partners or non-partners were only sometimes involved in their ABDL behavior, suggesting that most persons practice ABDL behaviors alone. Using diapers and wetting were more common ABDL behaviors than other types of ABDL behaviors. Participants did not seem to have a definitive bias as to the origin of their ABDL interests (i.e., innate versus learned) except they seemed more skeptical about the idea that ABDL interests were related to toilet training. The vast majority of the participants in this study were not concerned about their ABDL behaviors. It is possible that most persons who belong to the online ABDL community have preexisting comfort with their sexuality, which is enhanced by a sense of connection with like-minded individuals.

Mood States and ABDL

There were few significant correlations between mood states and ABDL behavior. Thus, there was little support for the idea that ABDL behavior may function to reduce negative mood states. If negative mood states were ever associated with ABDL behavior, that relationship may have disappeared over time due to an evolving meaning or function of ABDL behavior. For example, ABDL behavior may have shifted from a coping mechanism for negative mood states to an expression of one's identity or a recreational activity. Alternatively, ABDL behavior may have never been a coping mechanism for negative mood states by most persons in the ABDL online community. Other results in this study showed that the participants reported few problems in their lives due to ABDL behavior. These findings match the results from another large study of people who have practiced bondage and discipline or sadomasochism (Richters et al., 2008), which suggests that the ABDL community represents another sexual subculture in which ABDL behaviors are not problematic for most of its practitioners.

Parental Relationships, Attachment Measures, and ABDL

There was modest support for the idea that ABDL behavior was related to a person's parental relationship and type of attachment. Notably, for female participants, none of the correlations between the ABDL variables and parental relationship measures or the attachment measures were statistically significant at the .01 level. This suggests that ABDL behavior may have a different meaning or function for females when compared to males. For females in the ABDL community, engaging in ABDL behavior is not related to their type of attachment or their parental relationships. Compared to male participants, female participants reported greater levels of the perception that being dominated and that being a baby were important in their ABDL behavior (see Table 4). Thus, it is possible that females engage in ABDL behavior to simulate a relational experience in which they are submissive and feel cared for. More research is needed to understand the motives of females participating in ABDL behavior, including females who play the role of a mommy, an ABDL behavior that was not assessed fully in this study.

For male participants, there were only a few significant correlations between ABDL variables and both parental measures and these correlations were small. Most of these correlations were negative, suggesting that, for some male participants, ABDL behaviors may compensate for a poor relationship with their mother or father (see Table 6). By the same token, having a good relationship with their mother or father might decrease the likelihood of engaging in some ABDL behaviors. There were several positive but small correlations between attachment anxiety and ABDL variables for male participants. More frequent ABDL behaviors, greater sexual stimulation to ABDL activities, and the perceived importance of ABDL behaviors were associated with higher levels of anxious attachment. The correlations were not significant across all variables, but the pattern suggests that the ABDL behaviors may function to decrease anxious attachment, helping the male participants to feel more secure. In contrast, the correlations between ABDL variables and avoidant attachment were small and negative (see Table 6). For male participants, greater frequency of some ABDL behaviors (i.e., having a mommy with sex and having a mommy without sex) was associated with lower levels of avoidant attachment. Overall, the correlations suggest that ABDL behaviors are related to attachment, possibly a desire for secure attachment. Still, causal inferences cannot be made from the correlational nature of these data. Also, the small and inconsistent patterns of these correlations warrant cautious interpretations. Follow-up research would be needed to determine if anxious attachment to a parent plays an etiological role in ABDL interests.

Two Types of ABDL Subgroups

The data provided provisional support to the idea that there are at least two distinct groups within the ABDL community:

individuals who are primarily interested in role play (i.e., the Adult Baby) and individuals who are primarily interested in sexual activity (i.e., the Diaper Lover). There was not a significant correlation between the two statements used to gauge role play enjoyment and sexual enjoyment. The correlations in Table 7 provided some convergent validity for these two questions. For both male and female participants, perceived importance of being a baby in ABDL was positively and strongly correlated with the role play question, but not with the sexual enjoyment question. Similarly, for both male and female participants, perceived importance of sexual excitement in ABDL was positively and strongly correlated with the sexual enjoyment question, but not with the role play question. Although the results provided support for at least two subgroups in the ABDL community, a close examination of the data suggested that these two groups do overlap and that additional subgroups may exist.

The Sexual Activity ABDL Subgroup

The role play question was not correlated with perceptions of diapers as sexually stimulating. In contrast, the sexual enjoyment question was strongly and positively correlated with perceiving diapers as sexually stimulating (see Table 7). This pattern of results was evident for male and female participants. In general, reported frequency of specific types of ABDL behaviors were not correlated with the sexual enjoyment question, but were correlated with the role play question. As a key specific example, the sexual enjoyment question was not correlated with the frequency of using diapers, but was correlated with perceiving diapers as sexually stimulating. Thus, one subgroup of the ABDL online community appears to be focused on sexual activity in which the diaper is a sexually arousing object. Participants who enjoy sexual activity as a part of their ABDL behavior seem less likely to engage in baby role play behaviors. The diaper may not be the only sexually arousing object, however, given that the sexual enjoyment question was also correlated with finding other items sexually stimulating: other baby items, baby clothing, baby toys, and non-ABDL toys. It should be noted that the survey specified “other baby items (e.g., powder, bib, pacifier, etc.)” but did not fully assess what items might be included in that category. Moreover, it should be noted that although diapers and the aforementioned objects may be sexually stimulating to some persons who practice ABDL, the desire for the object may not meet the criteria for fetishism; they may simply be objects that are sexually arousing.

Despite the apparent focus on sexual stimulation, the hypothesized sexual activity ABDL subgroup may not be devoid of role play. For example, for male and female participants, the sexual enjoyment question was positively correlated with the frequency of having a daddy with sex in ABDL behavior. For male participants, the sexual enjoyment question was positively correlated with the frequency of having a mommy with sex in ABDL behavior. Some degree of role play may serve to enhance the

sexual arousal for persons in the sexual activity ABDL subgroup. This notion was also supported by the strong correlations between the sexual enjoyment question and the perception that being dominated was an important part of ABDL behavior (see Table 7). At a certain level, ABDL behavior may simply be a variant of sadomasochistic behavior in the sense that submissive or dominating behaviors are involved.

The Role Play ABDL Subgroup

For male participants, the role play enjoyment question was significantly correlated with all nine of the specific ABDL behaviors specified in the study (see Table 7). For the female participants, fewer significant correlations were evident. This suggests that females who enjoy role play in their ABDL behavior may be less likely to engage in certain role play behaviors, such as wetting or messing diapers. As noted earlier, enjoyment of role play was not correlated with perceiving sexual excitement as important in ABDL behavior. Although the role play enjoyment question was not related to perceiving diapers as sexually stimulating, it was correlated with perceiving other ABDL items as sexually stimulating: other baby items, baby clothing, and baby toys. For both male and female participants, these correlations were positive and strong. Notably, this was not true of the correlation between role play enjoyment and perceiving non-ABDL toys as sexually stimulating. In other words, although there seems to be good evidence of an ABDL subgroup in which role play was of primary interest, this group may not be devoid of sexual arousal. It is possible that persons endorsing higher levels of role play enjoyment minimized their sexual interests or that they defined sexual activity and arousal differently than persons who endorsed higher levels of sexual enjoyment. Similarly, the meaning or function of the ABDL behavior may differ by subgroup. Although sexual arousal may occur for persons who are focused on role play enjoyment, having an orgasm may not be a goal.

One implication of the hypothesized role play subgroup is that the ABDL may not qualify as a paraphilia because sexual arousal and activity are not important. It should also be noted that, like the sexual activity subgroup, role play enjoyment was correlated with the perception that being dominated was an important part of ABDL behavior. Because the hypothesized two subgroups appear to have some overlap, there may be additional sects within each subgroup. For example, within a role play subgroup, there may one sect of individuals who do not find certain ABDL items sexually stimulating (e.g., other baby items, baby clothing, and baby toys) and another sect who do find these items sexually arousing. Further research is needed to explore the aforementioned ideas.

Sex Differences

There were some notable sex differences in the data. Males reported that they developed an interest and practice of ABDL

behavior earlier than females. Similarly, males reported that they had been practicing ABDL longer than female participants.

The data suggested that males in the ABDL community were more likely to be interested in the sexual aspects of ABDL behavior and have a greater focus on the diaper as a part of ABDL behavior. When compared to female participants, male participants reported using diapers more, stronger perceptions of diapers as sexually stimulating, and greater levels of viewing diapers and viewing sexual excitement as important in ABDL behavior (see Table 4). Male participants also reported greater agreement with the sexual enjoyment question when compared to female participants. Thus, although some males enjoy role play in ABDL behavior, they may be more likely than female participants to engage in ABDL behavior for sexual enjoyment.

Female participants reported greater agreement with the role play enjoyment question when compared to male participants. This focus on role play for females was also reflected in some of the specific ABDL behaviors. When compared to male participants, female participants reported a greater frequency of having a daddy without sex and having a daddy with sex in their ABDL behaviors. It is not clear, however, if this reflects a greater interest in role play among females in the ABDL community or a willingness to partake in role play behavior because of the wishes of their partners. Compared to male participants, female participants also reported greater levels of the perception that being dominated and also being a baby were each important in ABDL behavior (see Table 4).

For female participants, the sexual enjoyment question was positively and strongly correlated with finding diapers sexually stimulating. There is little research showing that females enjoy fetish-type objects although research has shown that females participate in the bondage-domination and sadomashochism community (Richters et al., 2008). As noted, some participants in this study may have defined sexual arousal in different ways and this study did not assess for experiences of orgasm during ABDL behaviors. Follow-up research is needed to verify that some females find diapers sexually stimulating and explore ideas about how this sexual interest developed.

Limitations

There were several limitations to this survey. The results may not be generalizable because people who partake in the ABDL behavior may not all belong to an online community. Members of the online ABDL community may be more comfortable with ABDL practices. The survey was also limited to persons who were literate in English. Important demographic information about the sample, such as geographic location, was not collected. Moreover, the study did not include any type of comparison group. For example, although the typical participant reported that ABDL interfered with their romantic relationship more than once, it is not clear if this is any different from the number of times a sexual interest or issue interfered with a romantic relationship in a non-ABDL sample. Participants may have provided biased

responses in order to depict a desired outcome (e.g., under-reporting sexual interests or motives; over-reporting harmonious parental relationships or secure attachment). As noted, causal inferences cannot be made from the correlations in this study.

Conclusions

Despite the limitations of this study, there are important contributions for clinical work and research. Given the diversity of the ABDL community, clinicians and researchers should be cautious about making assumptions of persons involved in ABDL. Scholars should not assume that ABDL behavior is designed to cope with negative feelings. Given the general comfort and lack of distress with their ABDL behavior, future research might explore how persons involved with ABDL behavior became comfortable with their sexuality and how they made it work in their relationships. Qualitative data not used for this study suggested that there may be additional subgroups of persons with ABDL. Thus, although the current study suggests two subgroups of ABDL persons, future research might identify additional subgroups of persons with ABDL. Furthermore, some of the qualitative comments noted that ABDL behavior was not sexual for them. Additional analyses of the data from this study, quantitative and qualitative, are clearly needed, but this study alone cannot address every clinical and research issue related to the ABDL community. By understanding persons with ABDL, therapists and researchers may be better equipped to understand the breadth of sexuality for all individuals, whether their sexuality seems typical or atypical.

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References

- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Washington, DC: Author.
- Baumeister, R. F. (2000). Gender differences in erotic plasticity: The female sex drive as socially flexible and responsive. *Psychological Bulletin*, *126*, 347–374.
- Bethell, M. (1974). A rare manifestation of fetishism. *Archives of Sexual Behavior*, *3*, 301–302.
- Caldwell, J. G. (2008). Relational aspects of maladaptive diaper-wearing and treatment with couples therapy. *Sexual and Relationship Therapy*, *23*, 157–160.
- Chalkley, A. J., & Powell, G. E. (1983). The clinical description of forty-eight cases of sexual fetishism. *British Journal of Psychiatry*, *142*, 292–295.
- Coleman, E. (2000). Psychiatry and human sexuality. *Current Opinion in Psychiatry*, *13*, 277–278.
- Croarkin, P., Nam, T., & Waldrep, D. (2004). Comment on adult baby syndrome [Letter to the Editor]. *American Journal of Psychiatry*, *161*, 2141.
- Darcangelo, S. (2008). Fetishism: Psychopathology and theory. In D. R. Laws & W. T. O'Donohue (Eds.), *Sexual deviance: Theory, assessment, and treatment* (pp. 108–118). New York: Guilford Press.
- Dinello, F. A. (1967). Stages of treatment in the case of a diaper-wearing seventeen-year-old male. *American Journal of Psychiatry*, *124*, 94–96.

- Epstein, A. (1961). Relationship of fetishism and transvestism to brain and particularly to temporal lobe dysfunction. *Journal of Nervous and Mental Disease*, 133, 247–253.
- Evcimen, H., & Gratz, S. (2006). Adult baby syndrome [Letter to the Editor]. *Archives of Sexual Behavior*, 35, 115–116.
- Freud, S. (1961). Fetishism. In J. Strachey (Ed. & Trans.), *The standard edition of the complete psychological works of Sigmund Freud* (Vol. 21, pp. 152–157). London: Hogarth Press. (Original work published 1927).
- Gates, G. J. (2006). *Same-sex couples and the gay, lesbian, bisexual population: New estimates from the American Community Survey*. Retrieved from The Williams Institute on Sexual Orientation Law and Public Policy, UCLA School of Law website: <http://www.escholarship.org/uc/item/8h08t0zf>.
- Giles, J. (2012). Adult baby syndrome and age identity disorder: Comment on Kise and Nguyen (2011) [Letter to the Editor]. *Archives of Sexual Behavior*, 41, 321–322.
- Kafka, M. P. (2010a). The DSM criteria for fetishism. *Archives of Sexual Behavior*, 39, 357–362.
- Kafka, M. P. (2010b). The DSM criteria for paraphilia not otherwise specified. *Archives of Sexual Behavior*, 39, 373–376.
- Kise, K., & Nguyen, M. (2011). Adult baby syndrome and gender identity disorder [Letter to the Editor]. *Archives of Sexual Behavior*, 40, 857–859.
- Laws, D. R., & Donohue, W. T. (Eds.). (2008). *Sexual deviance: Theory, assessment, and treatment* (4th ed.). New York: Guilford Press.
- Lehne, G. K., & Money, J. (2003). Multiplex versus multiple taxonomy of paraphilia: Case example. *Sexual Abuse: A Journal of Research and Treatment*, 15, 61–72.
- Malitz, S. (1966). Another report on the wearing of diapers and rubber pants by an adult male. *American Journal of Psychiatry*, 122, 1435–1437.
- McConaghy, N. (1974). Penile volume increases to moving and still pictures of male and female nudes. *Archives of Sexual Behavior*, 3, 565–570.
- Mitchell, W., Falconer, M., & Hill, D. (1954). Epilepsy with fetishism relieved by temporal lobectomy. *Lancet*, 2, 626–630.
- Money, J. (1984). Paraphilias: Phenomenology and classification. *American Journal of Psychotherapy*, 38, 164–179.
- Money, J. (1986). *Lovemaps: Clinical concepts of sexual/erotic health and pathology, paraphilia, and gender transposition in childhood, adolescence, and maturity*. New York: Irvington Publishers.
- Moser, C. (2005). DSM-IV-TR and the paraphilias: An argument for removal. *Journal of Psychology and Human Sexuality*, 17(3/4), 91–109.
- Pandita-Gunawardena, R. (1990). Paraphilic infantilism: A rare case of fetishistic behavior. *British Journal of Psychiatry*, 157, 767–770.
- Pate, J., & Gabbard, G. (2003). Adult baby syndrome. *American Journal of Psychiatry*, 160, 1932–1936.
- Rachman, S. S., & Hodgson, R. J. (1968). Experimentally-induced ‘sexual fetishism’: Replication and development. *Psychological Record*, 18, 25–27.
- Richters, J., de Visser, R. O., Rissel, C. E., Grulich, A. E., & Smith, A. M. A. (2008). Demographic and psychosocial features of participants in bondage and discipline, “sadoomasochism” or dominance and submission (BDSM): Data from a national survey. *Journal of Sexual Medicine*, 5, 1660–1668.
- Sanders, G. (1997). Recovering from paraphilia: An adolescent’s journey from despair to hope. *Journal of Child and Youth Care*, 11, 43–54.
- Shacham, S. (1983). A shortened version of the Profile of Mood States. *Journal of Personality Assessment*, 47, 305–306.
- Tuchman, W., & Lachman, J. (1964). An unusual perversion: The wearing of diapers and rubber pants in a 29-year-old male. *American Journal of Psychiatry*, 120, 1198–1199.
- Waismann, R., Fenwick, M. B., Wilson, G. D., Hewett, T. D., & Lumsden, J. (2003). EEG responses to visual erotic stimuli in men with normal and paraphilic interests. *Archives of Sexual Behavior*, 32, 135–144.
- Wei, M., Russell, D. W., Mallinckrodt, B., & Vogel, D. L. (2007). The Experiences in Close Relationship Scale (ECR)-Short Form: Reliability, validity, and factor structure. *Journal of Personality Assessment*, 88, 187–204.
- Wise, T. N. (1985). Fetishism: Etiology and treatment. A review from multiple perspectives. *Comprehensive Psychiatry*, 26, 249–257.