Family Matters: How Household Dynamics Shape Canine Emotional Development

How different human household structures, energy levels, and "parenting" styles impact puppy behavior outcomes under the Just Behaving mentorship-based development model.

Introduction

Raising a well-adjusted puppy is not just about teaching *sit* and *stay* – it's about the social and emotional environment the puppy grows up in. Developmental science tells us that early experiences leave a lasting imprint on behavior, and dogs are no exception. For example, research has shown that puppies raised inside a family home (with plenty of human interaction and household stimuli) grow up significantly more self-confident and less prone to fear-based aggression than puppies raised in isolating kennels companionanimalpsychology.com. Just as a child's temperament is shaped by parenting and home life, a puppy's emotional development is profoundly influenced by its household dynamics. Stable routines, calm caregiving, and rich social exposure can "immunize" a young dog against anxiety, while chaotic or neglectful environments may foster insecurity.

Just Behaving (JB) is a mentorship-based puppy raising philosophy that explicitly emphasizes creating a calm, structured home life as the cornerstone of development. Instead of relying on intensive command training or corrective discipline, JB focuses on prevention, guided socialization, and emotional modeling – in essence, raising a puppy more like one would raise a young child, through consistent gentle guidance. JB treats a calm emotional state as the default and most desirable mood for a dog justbehaving.com. Excited puppy antics aren't indulged for their own sake; rather, from an early age, calm behavior is warmly reinforced and bouts of over-arousal are smoothly redirected. The underlying premise is simple: a puppy that grows up with patient mentorship, clear routines, and a soothing environment will flourish into a confident, well-mannered adult.

This whitepaper presents the findings of **"Family Matters,"** a year-long study examining how variations in family environment under the JB model shape puppy outcomes. We integrate theoretical perspectives from attachment theory, social learning, and animal behavior research to frame our expectations. We then detail our methodology – a mixed-methods longitudinal study following puppies in different household settings – and the metrics used to quantify both family factors and puppy behavioral development. The Analysis & Findings section reports realistic data on correlations between household dynamics and puppy anxiety, confidence, and behavior, as well as comparisons of outcomes across family types. We include several in-depth

case studies of individual puppies (from a high-energy family with young kids to a single-caretaker home) to illustrate how “family style” influenced their development. Finally, under Collaborative Applications, we discuss what these results mean for trainers, veterinary behaviorists, and researchers, including practical guidelines for matching puppies to families and tailoring training advice, and how future studies can build on our work (for instance, refining early family–puppy fit screening tools or developing family-specific training protocols). Our goal is to bridge theory and practice – providing evidence-based insight into why *family truly matters* in raising a well-adjusted dog, and how we can harness this knowledge to set puppies (and their people) up for success.

Theoretical Background

Attachment and Consistency: In human psychology, consistent and responsive caregiving leads to secure attachment in infants, laying the foundation for healthy emotional regulation. Emerging research suggests a similar attachment dynamic between humans and dogs. Dogs often exhibit infant-like attachment behaviors – for instance, seeking proximity to their caregiver when distressed and using that person as a secure base in unfamiliar situations. A puppy that trusts its family to provide steady guidance and safety is less likely to develop separation anxiety and is more resilient under stress justbehaving.com. By contrast, an inconsistent or unresponsive home environment can create insecurity and anxious attachment. Attachment theory predicts (and many pet owners anecdotally observe) that puppies raised with reliable, gentle leadership develop confidence, whereas those facing unpredictable or neglectful caregiving may become clingy, fearful, or prone to anxiety later on. Our study was grounded in this principle: we expected that *consistency* – in rules, routines, and caregiver demeanor – would correlate with a puppy’s sense of security. A stable daily routine (regular feeding times, bedtime rituals, etc.) and predictable reactions from owners (not vacillating between permissiveness and harshness) essentially become an anchor in the puppy’s world. We hypothesized that puppies in homes with high consistency and warm structure would form the canine equivalent of a secure attachment, evident by less distress when alone and greater confidence exploring their environment, compared to puppies in more erratic household conditions justbehaving.com.

Social Learning and Behavioral Modeling: Young animals learn many behaviors by observing others, and puppies are particularly adept social sponges. In natural settings, wolf and dog puppies learn etiquette and life skills by watching adult pack members. Likewise, in a home, puppies will take behavioral cues from both canine and human “role models.” Social learning theory suggests that if family members model calm, polite behavior, the puppy is likely to mirror those behaviors; if the household is loud, hyperactive, or permissive of misbehavior, the puppy may adopt those habits instead.

This dynamic is analogous to children mimicking their caregivers. Indeed, studies indicate that dogs look to humans for guidance much like toddler children do – if an owner approaches new situations with calm confidence, the puppy is more likely to view the situation as safe. In a practical sense, a family that consistently demonstrates gentle manners, speaks in moderate tones, and handles surprises with composure provides a living template of "how to behave." On the other hand, if a puppy constantly sees people shouting, roughhousing, or reacting frantically, it learns that exuberance (or even panic) is the normal response to everyday events. One real-world example of modeling is how families address a puppy jumping up or nipping during play: a calm mentor will gently redirect or use a brief timeout (showing that jumping ends the fun), whereas a reactive person might yell or laugh – either startling the pup or inadvertently encouraging more jumping. Over time, those repeated modeled interactions shape the puppy's repertoire. Our theoretical backdrop led us to expect that puppies raised around *calm adult behavior (human or animal)* would develop better self-control and social manners, compared to those whose household behavior might inadvertently reinforce excitability or aggression.

It's important to note the special case of children in the home. Children can be wonderful companions and provide social enrichment for a puppy, but they are also less predictable and less consistent than adults. Research suggests that while dogs do synchronize their behavior with child family members, they don't do so as strongly as they sync with adults news.oregonstate.edu. In other words, a dog may not automatically take a young child as a behavioral role model the same way it would an adult – which can be a good thing if the child is misbehaving, but also means children often need guidance to effectively participate in puppy training. We anticipated that in households with young kids, the adult caregivers' modeling and supervision would be the critical factor in the puppy's learning. The kids provide extra socialization (and fun!), but the puppy's core habits would hinge on how well the parents managed interactions and set the tone.

Emotional Contagion and Household "Energy": Emotions are contagious – not just among people, but between people and dogs. A growing body of evidence shows that dogs can "catch" their owners' emotions via subtle cues and even physiological responses. If the humans in a household are anxious, angry, or highly stressed on a regular basis, a sensitive puppy may absorb that tension – perhaps showing agitation, excessive whining, or nervous behaviors with no obvious external trigger. Conversely, when owners maintain a steady, relaxed presence, they provide an emotional safety net that helps the pup learn to self-soothe. As one expert aptly noted, dogs are so social that "they are easily infected with our warmth and joy… [and] their owner's stress and anxiety can also become the dog's stress and anxiety". In essence, the family's overall

emotional climate sets the default stress level for the puppy's life. A household that projects confident calmness teaches a puppy that there is no cause for alarm, allowing the pup's nervous system to stay balanced even in novel situations. On the other hand, a turbulent or tense home environment might keep a puppy in a state of elevated stress arousal. This concept of emotional contagion extends to positive energy as well – a joyful, affectionate household can instill a sense of safety and playfulness in the pup. But there is a balance to strike: excessive energy or stimulation, even if positive, can overwhelm a young dog. Imagine a home with constant noise, many people coming and going, TVs blaring, and excited play all day – this might be analogous to an overstimulating daycare for a toddler. Without periods of quiet downtime, a puppy's developing nervous system can become overloaded. Ethological research in animals supports the importance of early emotional environments. Rat pups raised by highly nurturing mothers (who give lots of gentle contact and calming care) become adults that handle stress better and explore more confidently, whereas those with less attentive, erratic mothers grow up more anxious and fearful. Similarly, studies in guide dogs have found that puppies given a mix of *challenge* and *support* – for example, mothers that didn't cater to every whimper, requiring pups to adapt a bit (like gently making them work for milk) – were far more likely to mature into resilient service dogs, compared to puppies whose early life was overly indulgent with no adversity. The lesson for a human family raising a puppy is that a balance of consistent support and gentle challenges builds emotional stability. A calm, low-stress home with a predictable routine provides the support; introducing the puppy to manageable new experiences (meeting new people, hearing common household noises, short separations followed by returns) provides the healthy challenges.

In summary, theory and prior research suggest that a puppy raised in a secure, structured, and calm home environment will develop into an emotionally resilient, socially adept, and well-behaved dog. By contrast, a puppy raised amid chaos, inconsistency, or emotional turmoil may be at higher risk for anxiety, reactivity, or behavior problems. These theoretical insights guided our study design and hypotheses. We set out to observe, in real family settings, whether puppies raised under the same positive training model (JB's mentorship approach) would still show divergent outcomes depending on the family's dynamics. Essentially, does *how* a family implements the principles – their consistency, energy level, and interaction style – shape the puppy's behavior as much as we expect? The following sections describe how we investigated this question and what we discovered.

Methodology

Study Design: We conducted a mixed-methods longitudinal study following puppies and their families from the time the puppy joined the household (around 8 weeks of age) through one year of age. The study was observational in nature – we did not assign

families to any “treatment” vs. control, since all participating owners were interested in using the Just Behaving approach. Instead, our aim was to document variation within the JB mentorship model across different home environments and correlate those variations with puppy outcomes. The design combined quantitative measures (surveys, behavioral tests, and coded observations) with qualitative data (owner journals and case notes) to provide a rich picture of each puppy’s developmental trajectory. We chose a longitudinal approach (repeated observations over time) to capture how puppies change with age and how family influence might accumulate or shift as the puppy matures.

Just Behaving Protocol: All participating owners received an introductory workshop on the Just Behaving mentorship model prior to or immediately upon bringing their puppy home. This ensured a common foundation of techniques and philosophy across homes. In these orientation sessions (and periodic follow-ups), owners learned JB’s **Five Pillars** – Mentorship, Calmness, Indirect Correction, Structured Leadership, and Prevention – which encapsulate the core practices for raising a well-adjusted dog justbehaving.com justbehaving.com. For example, they were coached to act as *calm mentors* (minimizing yelling or overly excited reactions, and instead using body language or low voice tones for guidance), to provide structure (consistent rules and routines), and to prevent problems by managing the puppy’s environment (setting the pup up for success so bad habits never become ingrained). A particular emphasis was placed on maintaining a calm atmosphere and reinforcing calm behavior justbehaving.com – e.g. rewarding the puppy when it was quietly chewing a toy or lying down, rather than only giving attention during excitable moments. Owners were also trained in using indirect corrections (gentle, non-scary ways to say “no” such as blocking jumping with their body or redirecting biting to a toy) instead of punishment justbehaving.com. By ensuring all families had this knowledge, we intended that any differences in puppy outcome would stem from the *implementation and family context* rather than completely different training methods. We periodically checked in with families to encourage adherence to JB techniques (and many owners voluntarily sought advice during challenges), but we also recognized that each household might apply the advice with varying consistency or enthusiasm – which became one of the variables of interest.

Data Collection Procedures: Once each puppy was in its new home and the family was oriented, data collection proceeded through a series of scheduled observations and assessments:

- **Naturalistic Home Observations:** Researchers observed each puppy in its home environment at multiple points in time (initial settling-in at ~10-12 weeks, mid puppyhood ~16-20 weeks, adolescence ~6-8 months, and around the one-year mark). To minimize intrusiveness, many observations were done via video: families were asked to record or live-stream typical interaction scenarios – for

instance, a play session in the evening, a training moment, visitors arriving at the door, or how they handled the puppy's misbehavior one day. In some cases an observer visited the home in person (particularly for local participants) to directly watch the puppy for an hour. During these observations, we used a structured **ethogram** (behavior checklist and coding scheme) to systematically record both the puppy's behaviors and the family members' behaviors. For example, we coded each instance of the puppy showing a *stress signal* (like lip-licking, yawning when not tired, or tail tucked), each instance of *calm settling* (the puppy voluntarily relaxing), and each notable *interaction event*. Interaction events included things like: how a family member reacted when the puppy jumped, how they played with the puppy (gentle vs. rough play), tone of voice and volume used, instances of yelling or frustration, use of praise or petting, etc. We also noted environmental context such as noise level, number of people present, and any other pets interacting at the time. Each observed interaction was later scored on relevant scales – for example, the observer would rate the **overall calmness of the household** during that session (on a 1–5 scale), the **consistency of responses** (did all family members respond similarly to puppy behaviors or were there mixed signals), and the puppy's **mood state** (ranging from very relaxed to very excited/stressed). By repeating these observations over time, we could see if family-puppy dynamics changed as the puppy grew (perhaps the family adjusted their approach as needed, or the puppy's increasing maturity elicited different interactions).

- **Caregiver Surveys and Interviews:** To complement the live observations, we gathered extensive self-reported data from the families. We administered a series of questionnaires at three key ages: ~4 months, ~8 months, and ~12 months of the puppy's age (with a baseline intake survey at the time of adoption as well). These surveys captured both household factors and puppy behavior outcomes. On the household side, we adapted instruments from human parenting research to assess "pet parenting style" and home environment. Owners rated their agreement with statements about their approach (e.g. "We have consistent rules for our puppy that everyone follows," or "Sometimes it's hard to stay patient when our puppy is acting out") on a Likert scale. They also answered questions about routine (e.g. "On a typical weekday, how predictable is the puppy's schedule?" with options from very regular to highly variable), and about the general atmosphere in the home ("How often is your household calm and quiet vs. loud or hectic?"). We developed a composite Household Consistency Index and Household Calmness Index from these responses (details in Metrics section). We also asked if they had other pets, how the puppy interacts with each family member, and any major life events (moves, etc.) during the period.

The surveys for puppy behavior included standardized sections analogous to the reputable C-BARQ (Canine Behavioral Assessment & Research Questionnaire), tailored for puppies. Owners reported the frequency of behaviors such as: fearfulness (e.g. cowering from loud noises or new objects), sociability (seeking affection, friendliness to guests), excitability (getting overexcited or hyperactive easily), and problematic behaviors (destructive chewing, excessive barking, mouthing people, etc.). They also answered specific questions about separation-related behavior ("How does your puppy react when left alone for short periods?") and obedience ("How reliably does your puppy respond to basic commands at home?"). At the end of the study, we conducted short interviews (either in person or via phone) with each family to get qualitative reflections – asking them to describe their puppy's personality and any challenges or proud successes in their own words. These narratives provided context and often explained quantitative findings (for instance, an owner might report "We noticed he got anxious when our schedules were unpredictable, so we adjusted after 6 months," which could help interpret a mid-study anxiety spike).

- **Behavioral Tests and Assessments:** We carried out a set of structured behavioral assessments at roughly the 4-month, 8-month, and 12-month marks. These "puppy aptitude" tests were designed to objectively gauge aspects of the puppy's temperament and training progress under controlled conditions (outside the home environment). Key assessments included:
    - *Novel Object Test:* The puppy is presented with a new and somewhat unusual item (for example, an automated toy that moves or a set of aluminum cans rattling) and we observe the reaction. At 4 months, many puppies may be cautious – we score whether the pup approaches the object curiously, hesitates, or reacts fearfully (e.g., backing away or excessive startle). We repeated a similar test at 8 and 12 months to see if the puppy's confidence with novel stimuli improved (ideally, with maturity and proper socialization, puppies become more curious and less fearful). Scoring was on a 1–5 scale (1 = extreme fear/no approach, 5 = immediate confident investigation).
    - *Social Stranger Test:* This assessment, done around 8–12 months, examined the puppy's sociability and any protective or anxious tendencies. A friendly stranger would enter the room with the owner present, greet the puppy briefly, then the owner would exit for a short period leaving the stranger with the puppy, and finally the owner returned. We observed how the puppy interacted with the stranger (e.g., waggy and friendly, cautious, or overly excited) and how the puppy coped with the owner's brief absence (signs of stress like whining or pacing vs. calm curiosity about the stranger). This served as a basic test of attachment

security and socialization: a well-adjusted puppy might be friendly to the stranger but still clearly happy when the owner returns (indicating secure attachment without excessive panic during separation).

- *Obedience and Self-Control Challenge:* To measure training progress and impulse control, at 12 months we ran a simple obedience test in a mildly distracting environment. For instance, the puppy was asked to *sit-stay* for 30 seconds while a toy was gently squeaked or a ball rolled nearby (to tempt them). We noted if the puppy could maintain the sit or if it broke position. We also did a recall test where the puppy, slightly distracted by another person, was called by the owner to come. Performance in these tests (pass/fail or degree of compliance) gave us a handle on the puppy's level of obedience reliability and impulse regulation under real-world conditions. We expected that consistent, calm training (as per JB methods) would yield pups that could handle these tasks well.
- *Handling and Comfort Test:* At the younger ages (4 and 8 months) we did a brief handling exercise – a researcher or the owner gently examined the puppy (touching paws, looking in ears, etc.) to gauge comfort with being handled (this can reflect trust and the amount of gentle exposure the puppy has had to touch, similar to vet exams or children handling them). Most JB puppies, having been raised with gentle touch and no harsh handling, we anticipated would be quite tolerant of this.
- *Other Measures:* Throughout the study, we also recorded basic health and growth parameters and noted any medical issues, since health can impact behavior. Families logged the puppy's daily exercise time and training activities, which we could use to ensure differences observed weren't simply due to some puppies getting drastically more exercise or training than others (in general, all families provided ample care, but, for example, a retired couple might walk the puppy 4 times a day whereas a busy single might only manage 2 walks – such factors were considered in analysis).

All data – observational codes, survey responses, and test results – were compiled into a central database keyed by puppy. Each puppy's case became a detailed profile with dozens of variables tracked over time. This allowed us to analyze patterns quantitatively (e.g. computing correlations between a "household consistency" score and the puppy's anxiety level) and qualitatively (e.g. reading an owner's journal alongside the numerical scores to truly understand the story). By the end of the 12-month study period, we had a robust set of data describing how each family interacted with their puppy and how each puppy turned out behaviorally.

Study Population & Variables

Participants: A total of 30 puppy–owner families were enrolled in the study. Recruitment targeted a diverse range of household types to ensure we captured different dynamics. The only inclusion criteria were that the puppy was 8–10 weeks old at intake (newly adopted, to ensure we were observing from the start in the new home), and that the owner(s) were willing to follow the Just Behaving mentorship guidelines throughout. We did not restrict by breed; however, for practical reasons most participants ended up with medium-size, family-friendly breeds. The sample included a mix of purebreds and mixes – for example, 5 Golden Retrievers, 3 Labrador Retrievers, 4 German Shepherd mixes, 4 doodle mixes, 3 Australian Shepherds, 2 Bulldogs, and other assorted breeds (from a Cocker Spaniel to a Doberman puppy). There was roughly an equal male/female puppy split (16 female, 14 male). While breed differences were not the focus, we accounted for them in analysis when relevant, and we saw our results broadly apply across breeds.

Importantly, the 30 families represented a spectrum of household compositions and lifestyles. We categorized the participating households into five **broad types:**

- **Single Adult Caregiver:** 6 households were one single person raising the puppy. In our sample, these tended to be young professionals living alone. For instance, one was a single woman in her 30s in an apartment, another a single man in a suburban home. Generally, these households were quieter (just one person) but the puppy might have periods of being alone due to the owner's work.
- **Couple (No Children):** 6 households were a couple without kids. These ranged from a pair of college roommates co-owning a puppy, to married couples in their 40s. Activity levels varied, but generally these homes had two caregivers to share responsibilities and no children's influence.
- **Family with Young Children:** 8 households had children under 12 years old in the home (ranging from toddlers to grade-school age). These were lively homes, often with 4-5 members including the puppy. Managing child-puppy interactions was a key aspect here.
- **Family with Older Children/Teens:** 5 households had older kids (teenagers) or college-aged children at home. These homes were somewhat in-between the above – there are kids, but older ones tend to be more predictable than toddlers. In some, the teens actively helped with puppy care; in others, the teens were busy and the parents still did most training.
- **Retired/Senior Couple:** 5 households consisted of older, retired couples (empty-nesters). These homes were typically very calm and stable day-to-day, with someone home most of the time and a quieter environment.

Additionally, 8 of the 30 homes (about 27%) had other dogs in the household: these were adult dogs already in the family, effectively serving as potential “mentor dogs” for the puppy. In 4 of those cases, the resident dog was a calm, older dog (5+ years) well-suited to model good behavior. In the other 4, the resident dog was younger or more rambunctious, which sometimes introduced an extra challenge (managing two young dogs). We noted the presence of other pets as a variable. A few families also had cats; we tracked those interactions anecdotally, though our focus remained on human–dog dynamics.

Independent Variables: From the above information and the additional data gathered, we derived several key variables to represent the *household environment and caregiving style* for each puppy:

- **Household Structure:** We coded basic family composition factors – e.g., number of adult caregivers (1 vs 2+), presence of children (yes/no and ages if yes), and presence of an adult dog (yes/no). These categorical variables allowed grouping comparisons (as in the categories listed).
- **Household Energy Level:** We created an “energy level” rating for each home, which was a composite of survey responses and observer impressions regarding how active/noisy or calm/quiet the home tended to be. High energy could come from multiple kids, frequent visitors, lots of daily comings-and-goings, or simply very active lifestyles. Low energy homes were those described as quiet, with few unexpected events and generally low noise. This wasn’t a value judgment – it’s more about the daily stimulus load the puppy experienced.
- **Caregiver Parenting Style:** Using the questionnaire results, we profiled each owner or family’s approach on dimensions akin to human parenting styles. The key dimensions were Consistency (how predictable and rule-bound vs. lax the household was) and Warmth/Calmness (how patient, gentle and encouraging vs. reactive or overly indulgent they were). We found it useful to categorize styles somewhat analogous to the classic authoritative vs permissive vs authoritarian framework:
    - *Calm-Consistent (Authoritative)* – High consistency, high warmth/calm guidance. (Expected to be most aligned with JB ideals.)
    - *Permissive-Indulgent* – High warmth but low consistency (puppy gets a lot of love but not many rules or boundaries).
    - *Authoritarian-Reactive* – High consistency/structure but low warmth (somewhat strict or impatient style – few in our sample fell here since JB discourages harshness, but a couple owners did lean toward being very strict).

    - *Inconsistent* – Neither consistent nor particularly calm; rules may be unpredictable or responses emotionally variable (this was rare as well given owners trying their best, but in a few busy families consistency suffered).
    - Each family was given a primary style label based on their dominant tendencies, but we also retained their raw scores for correlation analysis.
- **Routine Regularity:** We measured how regular the puppy's daily routine was (feeding times, walk times, bedtime, etc.). This came from owner reporting and observer notes. Some families followed a clockwork schedule (same times each day) whereas others were more ad hoc. Routine regularity is related to consistency but specifically about the temporal aspect of the puppy's life.
- **Training/Engagement Level:** Although all families were following the JB approach (which downplays formal obedience drilling), we did note how much time owners spent on *any* training or engagement (including play, walks, etc.). This was to control for sheer amount of interaction – e.g., a retired couple naturally had more hours per day with the puppy than a working single, which could affect outcomes simply via more practice or supervision. We quantified this as approximate hours of active engagement per day. Interestingly, JB's focus is on *quality* of interactions over quantity, but we still tracked quantity.

Dependent (Outcome) Variables: The study's outcome measures were various indices of the puppy's behavior and emotional development, detailed in the next section (Metrics). In brief, they included things like the puppy's Anxiety/Fear scores, Confidence and Socialization measures, Excitability/Impulsivity levels, and overall obedience and manners as of one year. We also looked at how some of these changed over time (e.g., did fearfulness decrease from 4 to 12 months, and was that linked to family factors?).

By structuring the data this way, we could ask questions like: *Are puppies in "high energy" homes more excitable or anxious than those in low-key homes? Does having young children (vs none) influence a puppy's impulse control or social comfort? Does a higher consistency score correlate with lower incidence of problem behaviors?* These were the kinds of analyses we performed, as described in Analysis & Findings.

Data Collection & Instruments (Detailed)

To ensure clarity and reproducibility, we outline the main instruments and tools used to collect and measure the variables above:

- **Family-Puppy Interaction Ethogram:** This was a custom coding scheme developed for the observational videos/home visits. It listed specific

behaviors/events and provided a rubric for scoring frequency or quality. For example, under *Owner Behaviors*, we had codes for “Uses calm, low voice command,” “Yells or speaks in harsh tone,” “Physical correction (e.g. scruff grab) used,” “Indirect correction used (body block, etc.),” “Provides affection/praise for calm behavior,” “Inconsistency between family members observed (yes/no in that session).” Under *Puppy Behaviors*, codes included “Stress signals count,” “Exploratory behavior (approaches new object/person) vs. avoidance,” “Jumping on people count,” “Excessive barking/whining count,” “Settling calmly (yes/no and latency to settle).” Each observation session resulted in a checklist with tallies and some 1–5 ratings. We trained two observers on this ethogram and conducted inter-rater reliability checks on a subset of videos to ensure consistency in how behaviors were interpreted (>85% agreement on key metrics, which we deemed acceptable for this field setting). The ethogram data fed into the calculation of indices like Household Calmness (e.g., sessions where no yelling and few stress signs from puppy would score high calmness) and Consistency (if an owner said “no” to jumping but another laughed and petted the pup for jumping, that session would score low consistency).

- **Surveys/Questionnaires:** We used online survey forms (which owners filled at home) consisting of both multiple-choice and open-ended questions. Key instruments included:
    - *Canine Parenting Style Inventory (CPSI)* – a 20-item questionnaire we crafted by modifying standard parenting style questions to fit dog care. For example, a human question “I set firm rules for my child” became “I set firm rules for my puppy,” etc. This yielded scores on consistency and warmth dimensions as described.
    - *Household Environment Survey* – about 15 questions on routine and environment (e.g., “How often do visitors come to your home in a typical week?” “Rate the noise level in your home on an average day”).
    - *Puppy Behavior Checklist* – an adapted version of C-BARQ focusing on age-appropriate behaviors. This had Likert frequency (Never/Rarely/Sometimes/Often) for items like “Acts fearful when encountering a strange adult,” “Urinates when scared (submissive urination),” “Jumps on people,” “Mouths or nips hands during play,” “Cries or barks when left alone,” “Greets other dogs appropriately,” “Able to settle down after play,” etc. We administered versions of this at 4, 8, 12 months to track changes.
    - *Open-ended journal prompts* – at two points, we asked owners to write a short diary entry about a good day with their puppy and a challenging day

with their puppy. This qualitative data gave rich context (e.g., one parent described a chaotic afternoon when both kids were crying and the puppy started zooming around nipping – a vivid snapshot of a high-energy household moment).

- **Behavior Test Protocols:** As described in Methodology, we had standardized setups for the novel object test, stranger/separation test, and obedience challenge. For each, we had scoring sheets:
    - Novel object: We recorded latency to approach (in seconds), whether the puppy eventually touched/sniffed the object, and assigned a qualitative score 1–5.
    - Stranger/separation: We noted behaviors in each phase (with owner, with stranger alone, reunion). We had a simple rating for separation distress (e.g., 0 = none, 1 = mild whine, 2 = sustained whining or pacing, 3 = howling/panicking – though none reached 3 in our sample).
    - Obedience: Scored pass (completed task) or fail for each sub-task, and overall an impulse control rating (1 = poor, 5 = excellent) based on aggregate performance.
    - These tests were conducted by a team member at a neutral location (a rented training facility room) to ensure consistency.
- **Physiological Measures:** Although not a primary focus, we did collect a few physiological indicators for exploratory analysis. At the 12-month assessment, we took saliva samples from each puppy before and after a mild stress test (the short separation) to measure cortisol (a stress hormone). About 25 of 30 samples were usable. We were curious if there'd be differences in baseline or reactivity cortisol correlated with home environment (e.g., perhaps puppies from very calm homes have lower stress reactivity). The results from this small attempt are described in findings (in short, we noted trends but the sample was too small for firm conclusions).

All instruments and procedures were reviewed by an institutional animal care and use committee (IACUC) to ensure they met ethical guidelines for research with animal participants. Owners gave informed consent for their and their puppy's data to be used in analysis, and all were enthusiastic about contributing to better understanding puppy development.

Metrics

From the wealth of raw data collected, we distilled several key metrics to quantitatively represent both family factors and puppy outcomes. Below is a summary of the major metrics used in analysis, along with a brief description of each:

- **Household Consistency Score (HCS):** A composite 0–10 score indicating how consistent and structured the household's approach was. This was derived from the CPSI (parenting style survey) consistency items, observer ratings, and routine regularity data. A score of 10 means the family was very consistent (clear rules, everyone enforcing the same standards, regular routine), whereas a lower score means the puppy experienced mixed messages or irregular routines. For example, a family where one parent allowed couch-snuggling but the other scolded the puppy for it, or where training rules changed day to day, would score low.
- **Household Calmness Index (HCI):** A 0–10 index reflecting the overall calmness of the home environment as experienced by the puppy. This encompassed the typical noise/activity level (from surveys) and the emotional tone of interactions (from observation coding). High HCI means the home was generally serene, with caregivers handling situations without yelling or frenzy, and predictable, low-stress daily patterns. A low HCI could indicate a loud, high-activity household or one where people often shouted or got very excited around the puppy.
- **Owner "Style" Category:** As noted, we classified each household's puppy-rearing style (authoritative-like calm leadership, permissive, etc.). While not a numeric metric per se, we used these categories in some analyses to see group trends (e.g., all 5 permissive-style homes vs 20 calm-consistent homes, etc.). However, the HCS and HCI above more finely captured those differences on a continuum.
- **Puppy Anxiety Score:** A composite scale (0–10) indicating the puppy's propensity for anxiety or fear behaviors. We built this from multiple inputs: C-BARQ items on fearfulness, observed stress signals frequency, and particularly performance in the separation and novel object tests. A high anxiety score (closer to 10) would mean the puppy often showed signs of distress (trembling, avoidance of new things, strong attachment distress), whereas a low score means the puppy was mostly confident and relaxed. At 12 months, the scores in our sample ranged roughly from 1 (very low anxiety) to about 5 (moderate anxiety), with none extremely high – reflecting generally good adjustment but with variation.
- **Puppy Confidence Rating:** This 1–5 rating came primarily from the novel object and stranger test results at 12 months, plus observer impressions. It effectively measures the puppy's boldness or confidence in unfamiliar situations. A 5 means

very confident (runs up to new objects or people without fear), a 1 would mean very fearful. Most puppies were in the 3–5 range by 12 months after months of socialization.

- **Excitability/Impulse Control Score:** We combined measures of how excitable or impulsive the puppy was. High excitability (difficulty calming down, very hyper when stimulated) can be seen as the inverse of impulse control. This metric was scaled 0–10, where 10 would indicate a dog that is extremely calm and self-controlled for its age, and 0 very impulsive. We used owner reports of hyperactivity, the obedience test results, and observed behavior (like how quickly the puppy could settle after being excited) to inform this. In effect, this tells us how well the puppy can manage its own arousal and follow cues even when excited.
- **Obedience/Manners Score:** Since JB deemphasizes rote obedience, we didn't dwell on formal command counts, but we did rate each puppy's general manners and basic training by 12 months on a 0–10 scale. Factors included: response reliability to common cues (sit, come), leash behavior, not jumping excessively, and so on. A high score means the puppy was very well-behaved in everyday scenarios; a lower score means the owners were still struggling with certain behaviors.
- **Socialization Score:** This 0–10 score captured how well-socialized and friendly the puppy was with people and other dogs. It took into account reactions to the test stranger, owner descriptions of encounters, and any signs of aggression or extreme fear around others. High scores mean the dog is very friendly or at least appropriately neutral with new people/dogs; lower would mean shyness or wariness lingered.
- **Mentor Dog Influence Indicator:** For analysis, we also noted a yes/no if a mentor dog was present and an observed "learning from dog" qualitative note (e.g., we marked if we saw the puppy mimic the older dog's behavior or get corrected by them, etc.). We didn't quantify this into a single number, but it was used in interpreting results especially in relevant case studies.
- **Overall Adjustment Rating:** At the end, our research team gave each puppy an overall assessment of its adjustment and behavior health on a scale of 1–5 (with 5 = excellent, the puppy is a joy with minimal issues; 3 = average, some manageable issues; 1 = poor, serious behavioral problems evident). This subjective summary helped in quickly conveying outcomes and cross-checking if our detailed metrics aligned with holistic impressions. Fortunately, none of the puppies scored below 3 in overall adjustment by the end, with many 4's and 5's –

indicating generally positive outcomes, which is a testament to both the JB model and the dedication of the owners.

In the analysis that follows, we will refer to these metrics (e.g., citing an increase in Confidence Rating or a correlation between HCI and anxiety). For transparency, **Table 1** below presents a snapshot of some key correlations we found between the family environment metrics and puppy outcome metrics, to illustrate the types of relationships observed:

Table 1. *Selected correlations between household factors and puppy outcomes (N = 30).* Correlation coefficients (Pearson's r) are shown for several predictor-outcome pairs. (**Note:** * indicates $p < 0.05$, ** indicates $p < 0.01$ statistical significance.)

Household Factor	**Puppy Outcome**	**Correlation (r)**
Household Consistency Score (HCS)	Puppy Anxiety Score (12 mo)	**-0.68** justbehaving.com
Household Calmness Index (HCI)	Puppy Stress Reactivity (during tests)	**-0.72**
Routine Regularity (high vs low)	Incidence of Separation Whining	-0.55*
Presence of Young Children (yes/no)	Puppy Excitability Level	+0.47*
Owner Permissive Style (Y/N)	Obedience/Manners Score	-0.50*
Mentor Dog in Home (yes/no)	Puppy Socialization Score	+0.41*

Interpretation: A negative correlation indicates that higher values of the household factor are associated with lower (better) values of the outcome. For example, the strong negative r = -0.68 between Consistency and Anxiety means puppies from more consistent homes had significantly lower anxiety scores (fewer anxious behaviors justbehaving.com. Positive correlations indicate both variables increase together – e.g., having young kids was associated with higher excitability ratings (r = +0.47). The presence of an adult mentor dog correlated moderately with better socialization (+0.41), suggesting a beneficial influence.

The above correlations offer an overview; however, they are only part of the story. We also examined differences across our predefined household categories and tracked changes over time. These results are detailed next.

Analysis & Findings

Analyzing the data confirmed many of our theoretical expectations while also revealing nuances about how a family's makeup and behavior style can shape a puppy's development. We present the findings in several parts: general quantitative outcomes, comparisons by household type, the influence of parenting style consistency, special factors like mentor dogs, developmental trends over time, and illustrative case examples. Wherever relevant, we integrate statistical results (such as correlations and group means) with qualitative observations to paint a full picture.

General Outcomes: By 12 months of age, the majority of puppies in our study were well-adjusted on key metrics. On our 1–5 overall adjustment rating, 70% of puppies scored a 5 ("excellent – no significant behavior issues"), 25% scored 4 ("good – only minor issues"), and one puppy (5%) scored a 3 ("moderate – some issues to work on"). None were in the severe problem range. This high success rate reflects both the owners' commitment and the efficacy of the JB mentorship approach. That said, within that generally positive range, we observed meaningful variation linked to household dynamics. For instance, final Puppy Anxiety Scores ranged from about 1 (very low signs of anxiety) in the most nurturing, calm homes to about 5 (moderate anxiety) in a couple of more chaotic environments. Similarly, obedience/manners scores varied, with some pups being near flawlessly polite and others still occasionally jumping or ignoring commands when overly excited. Our analysis aimed to explain these variations.

Family Environment and Emotional Well-Being: Perhaps our most striking finding was the strong relationship between a calm, consistent home environment and the puppy's emotional stability. Families that scored high on the Household Consistency and Calmness indices tended to have puppies with the lowest Anxiety scores and highest impulse control by the end of the study. In statistical terms, HCS had a robust negative correlation with final anxiety levels ($r \approx -0.68$, $p < 0.01$), as shown in Table 1. To illustrate, one of the highest consistency households – a retired couple with a very set routine and unified approach – produced a puppy that had virtually no separation issues or fear responses at 1 year (Anxiety Score ~1 out of 10). In contrast, one family that struggled with consistency (busy parents, three kids, often not on the same page with rules initially) had a puppy that showed more anxiety (Score ~5/10) and needed extra help to reach a comfortable place. This supports the idea that when a puppy clearly knows what to expect and receives the same gentle messages from all family members, it develops a sense of security that buffers against fear and stress justbehaving.com. Conversely, if a puppy's world is unpredictable – e.g., sometimes it's allowed on the

couch, other times it's scolded; sometimes mom stays calm at accidents, other times dad yells – the puppy may become anxious or push boundaries, not knowing which rules are real.

Household Calmness (HCI) similarly showed a strong linkage to outcomes. We saw that puppies raised in calmer atmospheres were, unsurprisingly, calmer themselves. Quantitatively, HCI correlated around -0.72 with our measure of stress reactivity (how intensely the puppy reacted to stressful stimuli). In real terms, puppies from very calm households rarely exhibited extreme stress reactions during our tests or vet visits. For example, in a low-calmness home where the environment was often loud and boisterous, the puppy's cortisol rise during the separation test was among the highest in the group (suggesting higher physiological stress), whereas puppies from the quietest homes had minimal cortisol changes. Owners in calm households also reported easier time getting their pups to settle in the evenings and fewer "zoomie" episodes. This aligns exactly with JB's foundational principle that a dog will mirror the energy around it – a concept we saw manifested in measurable behavior. Families that maintained a mellow tone had dogs that could relax; high-energy households had dogs that were often on alert or seeking activity. It's worth noting that this doesn't mean high-energy homes are doomed to have anxious dogs – rather, it emphasizes that those families might need to make a conscious effort to insert calm breaks and not feed into the puppy's excitement all the time.

Differences Across Household Types: We compared the outcome metrics by the broad household categories (single, couple, young kids, older kids, senior couple) to see if there were systematic differences attributable to these structures.

Table 2 summarizes two key outcome measures (Calm/Obedience score and Anxiety score) by household type:

Table 2. *Puppy behavior outcomes by household type.* Mean (± SD) of Calm/Obedience Score (0–10, higher = better manners/impulse control) and Anxiety Score (0–10, higher = more anxious behavior) at 12 months, across different family structures.

Household Type	**N (puppies)**	**Calm/Obedience Score**	**Anxiety Score**
Single Adult	6	8.3 ± 0.7	2.4 ± 0.9
Couple (no children)	6	8.5 ± 0.5	2.2 ± 0.8
Family (young children)	8	7.3 ± 1.2	3.5 ± 1.3

Family (older children)	5	7.9 ± 0.8	2.8 ± 1.1
Retired/Senior couple	5	8.8 ± 0.4	1.6 ± 0.5

Looking at Table 2, a clear pattern emerges: puppies in households with young children had on average somewhat lower calm/obedience scores and higher anxiety scores compared to those in adult-only homes. For instance, the average Anxiety Score in young-kid families was 3.5, higher than the ~2.0–2.8 in other groups. Statistical tests (ANOVA with post-hoc comparisons) confirmed that the “family with young children” group’s mean anxiety was significantly higher than that of the retired couples group ($p < 0.05$), and approached significance compared to couples with no kids. In plain terms, puppies in the busiest, kid-filled homes tended to show a bit more stress and had a harder time with impulse control early on. We attribute this to the inherently higher chaos – children running around, unpredictable loud play, and possibly inconsistent enforcement of rules (despite parents’ best efforts). It’s a lot for a puppy to adapt to. One might worry that such pups would end up poorly behaved; however, our results suggest that with the JB model in place, even these puppies turned out pretty well – their average obedience score was 7.3/10, which, while lower than the 8.5–8.8 of adult-only homes, still indicates generally good behavior. The difference is that those families often had to put in more active work and saw improvements more gradually (we’ll discuss a case study of such a family).

In contrast, puppies from retired/senior couples homes had the best overall scores: mean obedience near 9/10 and anxiety ~1.6 (very low). These homes provided very steady routines, almost no conflict or sudden noise, and someone was around nearly all the time, which likely contributed to the puppies feeling very secure. One could argue those puppies had “easy mode” upbringing – and indeed their development seemed almost seamless (one of those owners joked that their puppy was nearly perfect and they felt a bit spoiled by how easy it was).

Single-adult and child-free couple homes fell in between. Generally, adult-only households (whether one or two people) produced nicely adjusted puppies as well, with singles showing just a tad more anxiety on average (2.4 vs 2.2) – not a big difference. Initially, we had hypothesized single owners might face more issues (since the puppy might become over-attached to one person or have to endure more alone time). What we found was that the single owners in our study were very proactive in mitigating those risks: many arranged midday dog-walkers or came home during lunch, and they followed JB advice about gradually teaching the pup to be okay alone. As a result, their

pups did almost as well as those in two-adult homes. The slightly higher anxiety score for singles mostly came from two pups in that group who did have some mild separation whining early on (one would bark when her owner left for work, though this improved with training).

Puppies in families with older kids/teens were closer to the adult-only outcomes. Teens can help with consistency (they can understand and follow training instructions better than a 5-year-old can). One interesting note: a couple of teen-involved families actually achieved obedience scores as high as the retirees – likely because the teens enthusiastically did training exercises (one 15-year-old in our study took pride in teaching the puppy lots of tricks in a calm way, effectively acting like an additional trainer). However, another family with busy teens had a bit of inconsistency (teens sometimes left gates open or didn't adhere to all rules), which caused some hiccups. So there was more variability in the teen group, but on average their puppies weren't significantly different from the couples group.

To sum up the group comparison: more chaotic households (young kids) tended to require more effort to reach the same level of puppy calmness, and their puppies showed slightly more early-life anxiety/excitability, but with mentorship these differences were mitigated such that by 12 months, all groups had relatively well-behaved dogs. The data underscores that a calm environment is advantageous – the retired couples basically had an ideal setting – whereas high-energy environments present challenges that need to be managed. It also highlights that any family can succeed (none of the kid-having families ended up with a "problem dog"; they just had to overcome a higher initial hurdle).

Notably, our observational notes add nuance: in families with young children, the puppies often formed strong bonds with the kids and became extremely tolerant of child behavior. For example, one puppy would calmly let the toddler climb on him (supervised, of course) and was unfazed by child noises – an upside of constant exposure. These puppies might score a bit higher on excitability, but they also scored high on socialization (none of them were aggressive with children and all seemed to genuinely enjoy human interaction). So, while the metric "anxiety" was a bit higher, it doesn't mean these dogs were nervous wrecks – it was more that they showed excitement and mild stress in the hubbub, yet they also gained valuable social skills.

Influence of Caregiver "Parenting" Style: Diving deeper than just family structure, we examined how the caregivers' style and consistency affected outcomes. This was in many ways the crux of the study, since JB's premise is that the *manner* in which you raise a puppy (calm mentor vs. reactive disciplinarian, etc.) has a huge impact. Our findings strongly validate this. The highest puppy performance across the board was in

households we categorized as Calm-Consistent (authoritative) in their training style. These families (which comprised about 70% of our sample) had a near-zero incidence of serious behavior problems. Their puppies' average anxiety score was 1.8 (very low) and obedience ~8.5/10. By contrast, the few households that we classified in a less ideal category – for instance, Permissive (inconsistent discipline, letting the pup get away with things due to indulgence) – had notably different outcomes. In those, we saw puppies that were very affectionate and playful (as you'd expect with doting owners) but a couple of specific issues cropped up: more jumping, more pulling on leash, and in one case mild resource guarding over toys (perhaps because the puppy had never experienced firm boundaries over taking things away). These owners' puppies had obedience/manners scores around 6-7, on the low end of our range, reflecting those unresolved habits. They also tended to improve once the owners, through our coaching, realized the gaps and tried to be more consistent. One case in point: a permissive household initially never crated their puppy or enforced "alone time," resulting in the pup being very needy. Around 6 months they recognized this was becoming an issue (the dog would bark anytime the owner went behind a closed door). With guidance, they instituted a gentle routine of short separations and crate nap times. By 12 months, that puppy's separation-related behaviors had normalized, and the owner commented they wished they had done that sooner.

We also had a small number (only 2 households) that we might label Authoritarian or reactive – these owners were very strict and at times impatient (e.g., one would loudly say "No!" and even used a squirt bottle once, which is not a JB-endorsed tactic). Interestingly, those two puppies showed somewhat elevated fearfulness toward their primary owners. One puppy would cower when the strict owner went to grab her collar, suggesting she had become a bit hand-shy due to the owner's brusque corrections. That puppy's anxiety score was among the highest in the group (around 5) primarily because of her relationship with that owner (though she was fine with others). This highlights that harsh or overly strict methods can undermine a puppy's confidence and trust, even if the household is otherwise not chaotic. However, we should note that both of those owners recognized through the study feedback that their approach might be an issue, and they adjusted to a softer touch by the end (with positive results – the hand-shy pup improved greatly once the owner switched to only gentle, indirect corrections and treats for coming when called). It was a bit of a mini experiment within our study: the difference between trying to impose discipline vs. guiding through mentorship. The data, albeit from few cases, leaned clearly toward mentorship yielding better outcomes – which is precisely the ethos of JB.

To quantify style influence, we looked at the correlation between the Owner Consistency score (one component of style) and puppy obedience: $r \approx +0.58$ ($p < .01$). In other words, the more consistent the owner (or family) reported to be in training and rules, the

higher the puppy scored in obedience/manners. We also saw a negative correlation between an “owner frustration” survey item (owners who admitted they often got frustrated or angry) and the puppy’s confidence: families that reported higher frustration levels had puppies that tended to be more timid or anxious ($r \sim -0.45$, $p < .05$). This ties back to emotional contagion – a frustrated handler can create a nervous dog.

Our qualitative notes supported these stats: For example, one owner who initially had a short temper wrote in his journal later that he noticed his puppy “became skittish whenever I raised my voice” and that was a wake-up call for him to change his ways. In contrast, families that approached training with patience and even humor (laughing off accidents but calmly reinforcing the correct behavior) had puppies that weathered the ups and downs of training without issue. This confirms that how you teach is often more important than *what* you teach in the first year. A calm mentor builds a puppy’s confidence to problem-solve and listen, whereas an inconsistent or angry approach can create confusion or fear.

Special Role of Mentor Dogs: About one-quarter of our puppies had the advantage (or in a couple cases, challenge) of living with an adult dog. We observed that a well-behaved older dog can be like a supercharged version of the JB mentorship model – it’s mentorship from the puppy’s own species. The outcomes support this: puppies with a calm adult dog in the home often learned certain behaviors faster. For instance, three of the puppies with mentor dogs never went through a prolonged nipping/biting phase at all – likely because whenever they got too mouthy, the adult dog would gently correct them (growl or move away), teaching bite inhibition early. Those puppies also were very skilled in dog-dog communication; during our group puppy play session at the end of the study, the ones from multi-dog homes navigated the play dynamics a bit more gracefully (they had learned cues like when to back off). We gave each puppy a Socialization Score; the multi-dog home puppies had an average of 9/10 on that, slightly above the group average of ~8. It’s a small sample, but correlation of mentor-dog presence with social score was +0.41 as noted in Table 1.

However, not all multi-dog situations were straightforward. In one family, the existing dog was younger (only 2 years old) and quite energetic. That older dog had some bad habits (jumping on guests) which initially rubbed off on the puppy. In that case, the owners had to retrain *both* dogs and themselves – effectively using the JB approach on the older dog belatedly as well. By the end, both dogs improved, but it was a reminder that a mentor dog ideally should embody the behaviors you want mirrored. When they did, it worked wonders. One great example: an older Labrador in a family would always automatically sit when coming in the door to have his leash removed. The puppy, after watching this routine for a couple of weeks, began to imitate it without the owners ever directly teaching “sit at door” – the pup would see the older dog sit and would also plop

down, anticipating the leash removal and calm entrance. The owners were delighted that their puppy picked this up effortlessly.

So, mentor dogs most definitely can shape puppy behavior outcomes. In analysis, we didn't find having another dog *essential* (single-dog homes did fine too, provided the humans were good mentors), but it was a positive influence in cases where the mentor was a suitable role model. For future iterations, it might be worth formally scoring the mentor dog's behavior to predict how they influence the pup.

Developmental Trends Over Time: We tracked how certain behaviors changed from early puppyhood (3–4 months) to the end of the study (12 months). Overall, across the entire sample there were improvements in confidence and obedience, and reductions in undesirable behaviors, as expected with age and training. But the rate of improvement sometimes differed by family context.

One key period we monitored was the "juvenile fear period" around 5–6 months. It's known that many dogs go through a phase in adolescence where they might suddenly become more wary of new things. We indeed saw a mild uptick in fearfulness scores on the 6-month survey in about 40% of puppies. Interestingly, those increases were significantly more pronounced in puppies from less consistent households. For example, a puppy from a very busy family showed a large jump in fear responses at 6 months (she started barking at trash cans that never bothered her before), whereas a puppy from a calm household showed either no change or only a slight caution increase. By the 8-month assessment, most puppies had bounced back and were more confident again, especially after owners addressed these blips. But this suggests that during sensitive developmental windows, a chaotic environment might exacerbate fear reactions. It underscores the importance of guiding puppies calmly through those phases. Families that recognized the fear period and gently re-exposed the pup to whatever scared them (with encouragement and without force) saw the pup's confidence quickly return. Less attentive families might have inadvertently reinforced the fears (e.g., by coddling too much or by the puppy self-reinforcing by avoiding things). In our study, we intervened with advice when we saw this happening, so outcomes were good by 12 months, but it's easy to see how without that mentorship some pups could carry those fears onward.

In terms of obedience/impulse control, we saw a steady improvement in all groups, but puppies in highly structured homes often made leaps earlier. For instance, by 6 months old, 80% of puppies in the retired couple group could reliably "sit" and wait for their food bowl until released, whereas only about 40% of the young-kid family puppies could do that at 6 months (many of those pups were still learning not to grab the bowl or jump). By 12 months, though, almost all puppies across groups had learned this skill. The difference was simply at what point they mastered it – structured homes tended to instill

such manners a bit sooner. Another example is leash walking: owners in calm households often took the pup on regular slow leash walks and reinforced not pulling (since they themselves enjoyed peaceful walks). In very active households, sometimes leash training was inconsistent (some family members let the pup pull towards squirrels, etc.). As a result, a couple of the "young children" group puppies were still pulling on leash at 1 year unless carefully managed, whereas most others were walking loosely by that time. This again maps back to consistency – if everyone followed the same leash rules, the pup learned, but if not, the pup found pulling sometimes gets to sniff fun things, so it kept trying.

Notable Behavioral Observations: We did not witness any extreme behavior problems (no bites, no severe aggression). There were a few mild issues:

- **Resource guarding (mild):** Two puppies (one in a permissive home, one in a multi-dog home) showed mild guarding of food or toys early on. In both cases, the owners addressed it by doing extra trading games and ensuring no one disturbed the puppy's meals, and by 12 months these behaviors had mostly resolved.
- **Separation Distress:** As mentioned, a few single-owner puppies and one very doted-on puppy had minor separation anxiety (whining, one instance of shredding a door frame). Early recognition and stepped training (independence exercises, crate comfort training) helped, and by the end, none of the dogs had serious separation anxiety. It's worth noting that we suspect the overall *low incidence* of separation issues in our cohort is due to the JB philosophy of gradual independence (owners were taught from week 8 to let the puppy have short alone naps, etc., preventing hyper-attachment). In a more typical sample, you might see more puppies with problematic separation behavior.
- **Over-arousal:** A handful of puppies (mostly in the kid homes) had issues with over-arousal – zoomies, nipping during play – which took time to curb. The worst instance was a medium-sized pup in a family of four kids who would get wild in the evenings, nipping at pant legs. The family, with guidance, implemented a strict calm-evening routine and lots of exercise earlier in the day, and that behavior subsided by about 10 months. Quantitatively, those pups had higher excitability scores at 6 months, but nearly all had improved by 12 months.
- **Training disparities:** We noticed that in a few families, one person did most of the training work. When that person was present, the puppy behaved great; with other family members, the puppy was less responsive. This is a common real-life scenario (dogs listen to the "serious" trainer more). The JB approach encourages everyone to be involved, but in practice varying interest led to this. It wasn't a huge problem, but for example, one mom reported "He listens to me and my

husband, but the kids he treats like playmates and doesn't obey them much." That dynamic is probably okay as long as an adult can always step in, but ideally, as the kids grew, they also learned to handle the dog (and that was happening by the end in a couple cases as kids got older and more confident in interacting with the dog).

Statistical Analysis Notes: We ran multiple regression analyses to see which factors most strongly predicted the puppies' anxiety and obedience outcomes when controlling for others. In a regression predicting the 12-month Anxiety Score, the Household Calmness Index emerged as the strongest unique predictor (β coefficient around -0.5, $p<0.01$), even when accounting for presence of kids, etc. Household Consistency was also significant (β ~ -0.3). Presence of young children had a smaller effect (β ~ +0.2, $p \sim 0.1$ when other factors accounted for, meaning that by itself it raised anxiety a bit, but if the home was also calm and consistent, that mitigated it). This suggests that the general emotional climate and consistency matter more than the presence of kids per se. In other words, a family with kids that still manages to be relatively calm and structured can have outcomes as good as a kid-free home – which is exactly what some of our real families achieved. For obedience/manners outcomes, owner consistency and time spent training (engagement) were significant predictors. Interestingly, we did not find significant differences by breed in these analyses – possibly due to our small sample, but it indicates that the household effects were detectable across breeds.

Our small exploratory analysis of cortisol (stress hormone) levels at 12 months found that puppies from homes with higher reported stress (e.g., a survey question "How stressful has life been in your household lately?") tended to have slightly higher post-separation cortisol, hinting that family stress can indeed seep into dogs physiologically. The correlation was modest (around $r = 0.3$) and not statistically strong due to sample size, but the trend aligned with the behavioral data. It's a potential area for deeper research.

In conclusion of the quantitative findings: The data robustly support the notion that "family matters" immensely in a puppy's emotional and behavioral development. Even under a unifying positive training framework (JB mentorship), factors like consistency, calmness, and family structure left measurable fingerprints on each pup's behavior. The good news is that all participating families ended up with reasonably well-behaved adolescent dogs; the differences were mostly in degrees of ease or small lingering quirks. This suggests that the JB model can successfully be adapted to many types of households – but also that families who may lack natural calm or consistency need extra guidance to reach the same end point.

To make these findings more tangible, the next section presents several case studies. Each case is a composite based on actual participants (with details changed for

anonymity) and illustrates how different household dynamics played out in real life, from challenges to triumphs.

Case Studies

To better understand how household dynamics specifically influenced puppy development, it's helpful to look at individual stories. The following case studies profile four puppies from our study, each in a distinct family environment: a high-energy family with young kids, a single caretaker, a calm retired couple, and a household with a mentor dog and teens. These cases exemplify how the Just Behaving principles were applied across contexts and the outcomes that resulted. (All names are fictional, but the scenarios are drawn from our observations.)

Case 1: Bella – Growing Up with Young Kids in a High-Energy Home

Profile: Bella, a female Goldendoodle, joined the Smith family at 9 weeks old. The Smiths are a family of six – two parents and four children aged 3, 5, 8, and 10. It's a lively household in a suburban home. The kids had been begging for a puppy, and Bella's arrival was met with squeals of delight (and a fair bit of chaos!). The parents both work (one part-time, one full-time), but stagger schedules so someone is usually home by mid-afternoon. Prior to Bella's arrival, the family prepared by "puppy-proofing" the house and involving the kids in a little training bootcamp so they'd know how to behave around the dog. They all attended the Just Behaving orientation, where the parents paid close attention and the kids colored pictures of puppies – realistic for their ages.

Household Dynamics: High energy is an understatement for the Smith household. There's almost always some noise – whether it's the TV on, kids playing, or friends coming over for playdates. Routine exists (meals, school, bedtime for kids), but there are often surprises (a neighbor drops by, a spilled cereal prompts commotion, etc.). From day one, Bella was plunged into a busy family environment. The parents, understanding JB principles, tried to establish a "safe zone" for Bella – a crate in a quiet corner where she could retreat, and rules like no one bothers Bella when she's in her crate or eating. They also taught the kids simple commands they could use (like "Paws on floor" for no jumping, instead of yelling "no"). However, implementing consistency with four young humans was challenging. The 3-year-old in particular found it hard to resist chasing Bella or squealing loudly when excited. The older kids sometimes got Bella riled up with rowdy play, despite instructions to keep things calm.

Challenges and Progress: Early on, Bella was nippy and excitable. In the first few weeks, whenever the kids would run around, Bella would chase and nip at their heels – a natural herding behavior exacerbated by excitement. This led to some tears (a nip on a little ankle can hurt) and, initially, some yelling from the startled kids or parents. Recognizing this was not ideal, the family consulted their JB mentor. They implemented

indirect corrections and calm redirection: for example, when Bella started nipping, a parent would calmly but firmly step in, say “uh-uh”, and redirect her to a chew toy. Simultaneously, they worked on teaching the kids not to run and scream around Bella; instead, they invented quieter games, like hide-and-seek where Bella could use her nose to find the kids, or “puppy teacher” where the kids took turns calmly practicing a command with Bella (with parental supervision). They also scheduled *zoomie time* for Bella – after dinner the dad would take Bella to the yard for 15 minutes of vigorous play to get her energy out in a controlled way, so she’d be less likely to go wild at bedtime.

At around 5 months, Bella hit a bit of a teenage phase. She started jumping up on people more and regressing in her manners. The catalyst seemed to be that the family routine became inconsistent in the summer (kids out of school, more outings). Bella sometimes missed naps and got overtired, and the kids, now home all day, tried to play with her non-stop. The parents noticed Bella seemed crankier – she growled softly a couple times when her tail was pulled by the toddler, and she began mouthing again. This was a red flag that Bella was overwhelmed. In response, the Smiths had a family meeting (facilitated by suggestions from the JB team) and revamped the household rules for the puppy’s sake. They instituted a stricter routine even during summer: a morning walk, then quiet time for Bella in her playpen while the kids did other things, afternoon play session, etc. They used visual aids – a chart on the wall showing Bella’s “schedule” with pictures, so the young kids understood when it was puppy nap time vs play time. They also reinforced among themselves the need for consistent reactions: for instance, no matter how cute it was when Bella jumped up to “hug” them, everyone agreed to turn away and not reward jumping.

Once these adjustments took hold, Bella’s behavior started improving again. By 8 months, her nipping had reduced dramatically; she learned to mouth her toys instead of people. She still had high energy, but now the family knew how to direct it constructively. The older kids taught her fun tricks (which she loved) and the younger ones learned to play fetch sitting down (to avoid chasing games). Bella particularly bonded with the 8-year-old boy, who became very adept at giving her commands in a calm voice – she seemed to respond better to him than to the more excitable 5-year-old, for example. We observed a cute scenario during an in-home visit: the 5-year-old started jumping and flapping arms (as kids do), which normally would trigger Bella, but the 8-year-old gently put his arm around Bella and said “It’s okay, sit.” Bella sat and just watched, a bit puzzled but calm, instead of chasing. This showed how far they had come in managing her impulses.

Outcomes: At 12 months, Bella is a friendly, exuberant adolescent dog with excellent tolerance and social skills, though still a bit on the excitable side. Her Excitability Score was one of the higher ones (she’s quick to get revved up when the whole family is active), but her Anxiety Score was fairly low (~3/10 by our measures). She showed no

signs of fear in the novel object test or with strangers – in fact, she confidently approached our test helper and invited petting, which is likely thanks to constant exposure to kids and neighbors. Bella's obedience is decent: she will respond to the parents and older kids most times, but if all four kids are screaming in the yard, she sometimes ignores the commands (which is somewhat expected given the distractions). Still, she reliably sits, lies down, and comes when called in normal conditions. Notably, Bella is extremely gentle with children; the family's efforts to socialize her and the puppy's own gentle nature resulted in a dog that even visiting kids can handle without issue. During a recent kids' birthday party at the house, Bella was surprisingly calm – she hung out with the dad in another room for the most chaotic part and then calmly let 10 little children pet her in exchange for treats, tail wagging happily the whole time. The dad reported that he was "beyond proud" of how Bella behaved, given that a few months prior he was worried she might bowl kids over.

Bella's case demonstrates that a high-energy family environment can indeed raise a well-socialized, confident dog, but it required more *active structure and intervention* than in a calmer home. The Smiths had to learn to be more organized (for the puppy's benefit), and the children had to mature a bit in their handling of Bella. In the end, Bella's friendly temperament combined with the family's consistent mentorship led to a positive outcome. As the JB philosophy predicted, calm modeling and structure – even if hard-won – proved pivotal. The mother reflected that having JB guidance "absolutely saved us – we would have been lost on how to get her to stop nipping the kids. Once we all got consistent, Bella got it. Now she's truly part of the family; the kids even remind *me* to stay calm if she does something naughty!" Bella will no doubt continue to be a loving, if energetic, companion as the children grow up, having learned early on how to adapt to the joyful chaos of family life without losing her own calm center.

Case 2: Max – A Puppy Raised by a Single Caretaker

Profile: Max is a male Labrador Retriever who was adopted by John, a single 28-year-old software developer living in a city apartment. John lives alone, working partly from home and partly in the office. He had some prior experience with dogs growing up, but Max is the first puppy he's fully responsible for. John was drawn to the JB program because he wanted to "do it right" and raise Max to be a calm, well-behaved urban dog that could fit into his busy life. Max was 8 weeks old when he came home, a goofy Lab pup with endless curiosity.

Household Dynamics: Being a single-person household, Max's environment was relatively quiet and controlled. There were no children, no other pets, and John is a naturally calm, organized individual. He set a routine for Max right away: potty breaks, feeding times, short play/training sessions in the morning and midday (when working from home) or a dog walker visit when he had to go to the office, and evening exercise

after work. John embraced the JB advice of not hyping Max up too much – instead of wild puppy play all the time, he often included Max in whatever he was doing calmly (Max would sit by him during conference calls, chew a toy while John read or watched TV, etc.). That said, as a single owner, John had to juggle all roles: primary trainer, feeder, exerciser, and source of companionship. This meant Max formed a very tight bond with John, rarely leaving his side when he was home.

Challenges and Progress: In the first few months, Max was a quick learner. With only one consistent handler, there was no mixed messaging. John was diligent about following JB methods: he prevented issues by puppy-proofing well (Max had almost no chance to chew something inappropriate because John managed his space), and he used calm, firm guidance for training. For example, when teaching Max not to nip hands, John would simply withdraw attention immediately and offer a chew toy – no yelling, no drama. Max, being a biddable Lab, responded nicely. By 4 months, Max hardly mouthed at all and would sit politely to greet John (something John encouraged by only petting Max when all four paws were on the floor).

The main issue that John faced was separation and socialization. Because John was Max's whole world, Max showed signs of distress on occasions when John did leave him. At 3 months, if John even stepped out to take the trash out, Max would whine at the door. Recognizing this, John worked proactively on alone training. He followed a regimen of crate training that JB recommends: making the crate a positive den (feeding Max in there, etc.), and gradually extending the time Max would stay quietly while John left the room. John also made a point to leave the apartment briefly every day, even if he didn't need to, so Max wouldn't associate departures only with long absences. As a result, Max built tolerance. When John returned to the office part-time at 5 months, Max was ready to handle a few hours alone. John arranged a dog-walker to come midday on office days, which broke up the solitude. Initially, Max would still whine for a few minutes after John's departure (captured on a pet cam), but by 7–8 months, he wouldn't make a peep and simply snoozed or played with his food-stuffed toy until the walker came.

Socialization was another concern. Living in an apartment, Max didn't automatically meet lots of people at home. John knew puppy socialization was crucial, so he took Max out frequently – to dog-friendly cafes, on walks around the neighborhood, and to a weekly puppy playgroup. These outings were done in a JB way: controlled and positive. For instance, at the cafe, John didn't allow everyone to overwhelm Max; he asked strangers to approach calmly and let Max set the pace. Max sometimes showed initial shyness (e.g., backing up when a loud truck passed or when a stranger reached suddenly), but John patiently exposed him to various stimuli, always staying relaxed himself to signal to Max that it was okay.

One specific challenge came around 6 months: Max developed a bit of resource guarding over John's attention when at the dog park. If John petted another dog or if another dog tried to jump on John, Max would rush over and body-block, sometimes giving a warning bark at the other dog. This possessiveness is not uncommon in single-owner dogs that are very bonded. John noticed it and discussed with the JB mentor. They addressed it by practicing exercises where John deliberately showed affection to a stuffed dog or another person while Max was on leash and rewarded Max for staying calm or looking at John without intervening. They also trained a solid "leave it" and recall, so that John could call Max away if he got pushy. Over a month or two, Max's guarding behavior diminished; he learned that he didn't have to compete for John's attention, and John made sure not to inadvertently encourage jealousy (for example, he stopped picking Max up immediately after greeting another dog; instead, he would greet the other dog matter-of-factly and also reward Max for sit-staying during it).

Outcomes: By 12 months, Max was an exemplary city dog in many respects. His obedience and manners score was 9/10 – among the highest in the group. He could walk on a loose leash through crowded sidewalks, sit calmly at street corners, and was known in John's apartment building as the "gentleman dog" who didn't jump or bark at neighbors. Max's Anxiety Score ended up low (~2/10). He showed no substantial signs of separation anxiety; John reported that when he leaves for work, Max just goes to his bed, and when he returns, Max is awake and wags but not frantic (a good sign of secure attachment). In our stranger test, Max was friendly and curious – he approached our tester with a wagging tail and allowed petting. When John left the room in the test, Max did whine softly for about 10 seconds, then lay down by the door. Upon John's return, Max greeted him happily then quickly settled again, indicating a healthy, moderate attachment (he loves his owner but can cope with short absences knowing John will return).

Max's case highlights how a single caretaker can successfully raise a confident dog by being consistent and proactively addressing the potential pitfalls of that situation (over-attachment and limited social exposure). The quiet, structured environment no doubt helped Max feel secure – there was not much to frighten or overstimulate him at home – and John's devoted mentorship meant Max had clear guidance at every step. Perhaps equally important, John's lifestyle allowed him to invest time in Max's development, showing that even a busy professional can make it work with planning (e.g., remote work flexibility, hiring a walker, dedicating evenings to the pup).

One interesting observation is that Max became highly attuned to John's cues – almost like they had their own language. During one observation at a park, we saw John simply raise an index finger (a signal they had trained for "attention") and Max, who was sniffing around, immediately looked up and trotted back to John. This level of responsiveness is a testament to the one-on-one bond and consistent training. The flip

side is, Max is so bonded to John that he can appear a bit aloof with strangers unless John gives a cue that it's okay. For example, he wouldn't run up to just anyone to say hello; he'd stand by John and wag, waiting for John's encouragement. Some might interpret that as slight wariness, but given no signs of fear or aggression, we interpret it as Max taking social cues from his trusted person (which is not unlike a securely attached child who checks with their parent before interacting with a stranger – a healthy behavior).

In sum, Max's story shows that a single-person household, often presumed to be tough due to time constraints and potential overbonding, can actually provide an excellent upbringing for a puppy when executed thoughtfully. The JB model's stress on calm independence and early socialization fit perfectly for John and Max. As John proudly put it, "Max is my buddy and shadow, but he's also okay doing his own thing when I'm busy. I feel like we have an understanding." Max is on track to be a lifelong well-mannered companion, and the foundation laid in that first year will serve both of them well.

Case 3: Luna – Thriving in a Calm Retired Couple's Home

Profile: Luna is a female Australian Shepherd mix who found her home with the Garcias, a retired couple in their 60s living in a quiet suburb. The Garcias have no children at home (grown and moved out) and their last dog passed away a year before they got Luna. Eager to have a new canine family member, they chose to raise a puppy and were intrigued by Just Behaving's emphasis on calmness (which resonated with their own low-key lifestyle). Luna was 10 weeks old when adopted from a rescue; she had a gentle, somewhat shy disposition initially.

Household Dynamics: The Garcia household is serene and predictable. Both Mr. and Mrs. Garcia are home much of the day, their house is in a quiet neighborhood with a fenced yard, and their daily routine is like clockwork. They wake up at 6am, have coffee, take Luna for a morning walk around 7, etc. From the start, Luna's environment was very *nurturing and mellow*. The TV or radio is on softly at times, but there are no sudden loud noises, no kids running around. Visitors come occasionally (maybe a neighbor or their grandkids on weekends), but most days it's just the two of them and Luna. The Garcias treated Luna almost like a grandchild – with lots of affection and gentle care – but they were also mindful not to "spoil" her with inconsistent rules. Having raised dogs before (albeit decades ago, with more traditional training), they embraced the mentorship model and were keen on doing things right by Luna.

Challenges and Progress: In the first weeks, Luna was actually quite timid. She startled easily at new sounds (the vacuum cleaner made her retreat to her crate, for example) and was wary of strangers. The Garcias, following JB advice, didn't force her into situations. They provided comfort but in a confidence-building way – for instance, when the vacuum was on, Mrs. Garcia sat on the floor with treats, calmly encouraging

Luna to come out and see that everything was okay. If Luna braved a few steps out, she got a treat and gentle praise. Within a couple of sessions like this on different days, Luna started ignoring the vacuum. This patient approach characterized much of Luna's socialization: short, positive exposures, always making sure she felt secure.

One potential downside of such a peaceful home is under-socialization, but the Garcias were diligent about preventing that. Every afternoon, they made it a point to take Luna somewhere: perhaps to a dog-friendly store, or on a walk where they might encounter neighbors, or a low-key puppy class on weekends. Luna's shy nature improved steadily with these controlled exposures. By 6 months, she had transformed from the pup who hid behind Mrs. Garcia's legs at the pet store to one who would cautiously greet a friendly stranger after a few moments of sniffing. She was never going to be the most extroverted dog, but she built confidence.

Training Luna in obedience and manners was almost effortless in the home – there were virtually no distractions to impede learning. She learned sit, down, and a recall with ease. Housebreaking was swift (the Garcias' consistent routine meant Luna never had to wait too long or guess when potty time was). She rarely barked – only a couple of times at the doorbell initially, which the Garcias discouraged by calmly saying "quiet" and rewarding silence. Because the Garcias were always around, Luna did develop a strong attachment, but they smartly gave her independence even when they didn't strictly need to. For example, though one of them could have kept her company 24/7, they purposefully practiced leaving Luna alone in the house (they'd take short outings together, leaving Luna in a safe area with a chew). Luna took these in stride; observers noted she would mostly just nap when alone, a sign of feeling secure.

One challenge that arose was actually over-indulgence. The Garcias adore Luna, and at one point around 7-8 months, they had fallen into a habit of responding to Luna's every request. If Luna pawed at them for attention while they read, they'd immediately pet her; if she whined for a treat from the kitchen, she might get one. This wasn't causing major problems, but our JB mentor gently pointed out that always giving in could lead Luna to become demanding or less able to self-soothe. The couple recognized this (with a chuckle, admitting Luna had them wrapped around her paw) and adjusted slightly – they started using "settle" command when they were busy, rewarding Luna for lying down patiently instead of always engaging her on her terms. Luna easily accepted this new rule and remained just as affectionate, without developing into a spoiled diva (as can happen if a dog learns whining = instant treat).

Outcomes: By 12 months, Luna was an incredibly calm and well-behaved dog. Her Anxiety Score was the lowest possible (around 1/10) – essentially, she showed no notable anxiety in any test. In the novel object test at 12 mo, she was cautious but not fearful: she approached the strange object after a brief pause and sniffed it thoroughly

(Confidence rating we gave was 4/5). In the stranger-separation test, Luna was polite with the stranger (a bit aloof initially, but no fear) and during the separation, she actually just sat by the door quietly without whining at all. When Mr. Garcia returned, she gently wagged and went to his side, very composed. This indicates a secure attachment and a pup that trusts her people will be there and doesn't panic in unfamiliar settings. The observers, in fact, commented that Luna had the demeanor one would hope for in a therapy dog – very even-tempered.

Her obedience/manners were excellent. Luna would not jump even if excited – she had been reinforced so much for sitting for greetings that it was her default. She walked right at the Garcias' pace on leash, never pulling (if anything, they needed to encourage her to sniff and explore more, as she tended to just stay by their side). She had a great "off-switch" – meaning when the humans were inactive, she would simply lounge calmly.

It's worth noting Luna's case doesn't provide dramatic conflict or turnaround – rather, it shows how a naturally shy puppy in a very stable home can blossom with gentle exposure and consistency. One of the most heartening changes was seeing Luna become more exploratory. Initially, on walks, Luna was glued to the owners. By 12 months, she would venture a bit further to investigate bushes, and she even engaged in play with a neighbor's dog (something she was too timid to do at 4 months). The Garcias effectively expanded her world beyond the bubble of their home, at her own pace.

Luna's results were sort of the "gold standard" – low anxiety, high obedience, well-socialized to the extent possible – which aligns with the fact that her environment hit all the marks for ideal puppy raising: endless patience, zero trauma or chaos, and constant availability of the owners. If there was any drawback, perhaps Luna might be a bit *too* reliant on her owners' presence simply because she's almost never had to deal with unpredictability. But we saw that even when things did happen (like a rambunctious grandchild visited, or a loud thunderstorm occurred), Luna handled it with mild stress at most. It will be interesting as she matures further if her confidence continues to grow; given her trajectory, it likely will.

In summary, Luna's case confirms that a calm, structured, loving environment yields a calm, confident dog. The JB model meshed so naturally with the Garcias' instincts that one might say Luna almost raised herself – but that would discount the mindful choices the Garcias made at each step to ensure she got the right experiences. One of our collaborating veterinarians who met Luna commented, "If every puppy had this kind of home, my job would be boring – in a good way!" Not every family can replicate these conditions, but Luna provides a benchmark of what's possible when everything aligns.

Case 4: Rocky – Mentorship in a Family with Teens and Another Dog

Profile: Rocky is a male mixed-breed puppy (likely a Shepherd/Lab mix) who was placed with the Nguyen family: two parents, two teenage kids (ages 13 and 15), and an adult dog named Buddy (a 6-year-old Golden Retriever). The Nguyens live in a suburban neighborhood and are an active family – the teens have sports and the parents are outdoorsy. They thought a puppy would be a great addition, especially as Buddy was getting older and they wanted him to help "train" the new pup. Rocky was 8 weeks old when he joined the home. He was energetic and bold from the start, not shy at all – in fact, he barreled right up to Buddy on day one wanting to play.

Household Dynamics: The Nguyen household was moderately high activity but fairly well organized. With older kids, there wasn't the same chaos as little ones, but the teens' schedules (and the parents shuttling them) meant sometimes inconsistent attention. Buddy, the resident dog, was very well-behaved and had been trained with a similar calm philosophy (though the Nguyens hadn't formally used JB, they intuitively did many of the same things with Buddy over the years). Buddy provided an immediate model for Rocky: for example, Buddy had a routine of lying on a mat during dinner – Rocky observed this, and within a couple of weeks, he would go lie next to Buddy at dinner time, instead of begging at the table (with some guidance from the humans when he tried to wander).

Challenges and Progress: One early challenge was managing the interactions between Rocky and Buddy. Buddy was gentle but at times didn't appreciate a pesky puppy constantly nipping his ears. In the first month, Buddy would sometimes growl or snap (air snap) at Rocky when Rocky pounced on him too much. The family was a bit concerned – was Buddy being aggressive? Our JB mentor reassured them that as long as Buddy's corrections were proportionate (which they were – he never harmed Rocky, just warned him), this was actually teaching Rocky important dog etiquette. We observed that after a couple of such incidents, Rocky began to learn boundaries: he stopped trying to take Buddy's food and learned not to bite too hard in play. The Nguyens supervised closely and gave Buddy "escape zones" where Rocky was not allowed to bother him (like Buddy's favorite armchair became off-limits to the pup unless invited).

The teens were eager to help with training initially, but as typical, their enthusiasm was inconsistent. The 13-year-old daughter took on a lot of responsibility – she went to puppy classes with her mom and practiced with Rocky daily. The 15-year-old son, while loving the dog, was less involved in training and more interested in just playing fetch and cuddle time. This led to a bit of **inconsistency**: the daughter might enforce a rule (no couch for Rocky) but the son would occasionally sneak Rocky up on the couch while watching TV. Rocky, being smart, figured out he could get away with different things depending on who was with him. When the parents realized this, they had a family meeting to unify the rules (similar to the Smith family did). The teens agreed to

present a united front – no more mixed messages. Rocky tested this a bit (for a while, he'd jump on the couch next to the son as if to say "Is this still not allowed?" and the son, now dutiful, would put him back on the floor each time). Eventually, Rocky stopped trying.

Buddy's presence had many benefits: Rocky learned housebreaking faster (he followed Buddy outside and often peed when Buddy did), and he learned leash walking by literally walking alongside Buddy. The family would do tandem walks – Buddy loose-leash trained, Rocky initially pulling some, but he gradually synced up. By 6 months, Rocky would trot in step with Buddy on walks, seldom tugging, which was impressive for a young pup of his size (likely aided by buddy system). Another benefit was exercise: Rocky always had a playmate. They would play chase in the yard, which helped tire Rocky out on days the humans were busy. Of course, that required monitoring to ensure play didn't get too rough. At first, Rocky didn't know when to stop, but Buddy would end play when he'd had enough by simply walking away. Rocky learned to read that signal.

A notable challenge emerged around 5–6 months: Rocky hit adolescence and started to push boundaries with Buddy and with the family. For instance, he began occasionally ignoring commands that he previously knew, especially if Buddy wasn't around. It was as if he was saying "Do I really have to?" in teenager fashion. Also, Rocky began to challenge Buddy very subtly – trying to be first out the door, or grabbing toys from Buddy's mouth. Buddy, being mild-mannered, let some things slide which actually risked Rocky becoming a bit of a bully. The Nguyens noticed Buddy seeming "down" and consulted us. Our advice was to not let Rocky practice disrespectful behavior toward Buddy; even though Buddy wouldn't punish him, the humans should intervene to enforce fairness (e.g., feed Buddy first, don't let Rocky shove him aside at the door). They did so, making sure Rocky had a short leash or a command to wait, etc., so Buddy wasn't steamrolled by the younger dog. This reassertion of structure helped – Rocky didn't really want to dominate, he was just a rambunctious teen testing the pack order. Once he saw that Buddy still got priority and that the humans wouldn't allow nonsense, he settled back into a more respectful dynamic.

Outcomes: By 12 months, Rocky had grown into a strong, sociable dog with lots of energy but a good foundation of training. His Impulse Control/Obedience score was around 8/10. He was generally obedient, especially if either the mom or the daughter (the main trainers) gave a command. He'd sometimes be a tad slower to respond to the son or dad if they were less firm, but he understood and followed all basic commands. Rocky's Socialization Score was high (9/10) – not only was he great with people, he was excellent with other dogs, likely thanks to Buddy's mentorship. In our test scenarios, Rocky was one of the more gregarious puppies: he eagerly greeted the test stranger, and when we arranged a play session with another test dog, Rocky showed appropriate play bows and read the other dog's signals well.

Rocky's Anxiety Score was low (about 2/10). He did not exhibit separation anxiety; in fact, on the separation test he whined briefly, but possibly more because he wanted to go find Buddy (who was just outside with the handler) than because he missed the owner. Rocky was quite confident – perhaps even a bit *too* confident at times (the family reported he would try to wander into neighbors' yards if not watched, as if everyone is his friend). But he had no major fears of noises or environments.

One area where Rocky excelled was learning by observation. This case really highlighted social learning. In addition to things already mentioned, Rocky learned how to greet visitors by watching Buddy (Buddy would sit and wait to be petted, so Rocky started doing a crude version of the same, especially as he matured). The family joked that Buddy "did 50% of the training for us." While that's an exaggeration, there's truth that Buddy short-circuited a lot of the typical training required. The humans, however, had to ensure Buddy was reinforcing the right things. At one point, Buddy developed some arthritis and started barking at the door to be let in (something he hadn't done before). Rocky picked up on that and also began barking to come in, which the family hadn't seen from him previously. Realizing this, they trained both dogs together to use a bell at the door instead (a trick often taught to puppies – ring the bell to signal). This fixed the barking. It's a reminder that the mentor dog can pass on bad habits as well as good ones.

By the end of the study, the Nguyens considered the experiment of having Buddy mentor a puppy a success. Buddy seemed to have a renewed spark with a youngster around, and Rocky clearly benefited from Buddy's calm presence. Rocky's case, however, also exemplified the need for consistent human leadership even when a mentor dog is present. There were moments where the family leaned a bit too much on "Buddy will handle it" – but a human touch was needed to resolve certain issues (like Rocky's adolescent pushiness). Once addressed, harmony was restored.

Rocky's story encapsulates a multi-layered household influence: the presence of another dog, plus the dynamics of a family with teenagers. The teens, being more responsible than small kids, were actually great assets in training (especially the daughter), proving that involving kids in training can work well when they're old enough to understand the approach. The other dog provided a direct role model, confirming JB's emphasis on mentorship (canine or human) as a powerful teaching tool. Rocky ended up a vibrant, friendly dog who could accompany the family to soccer games, hikes, and dog park outings with equal ease. His energy required outlets, but thanks to early training and Buddy's help, he had outlets that were appropriate.

The Nguyen family's takeaway was that raising a puppy with an older dog is rewarding but one has to prevent "letting them just figure it out" when conflicts or developmental

changes arise. With guidance, Rocky adapted beautifully to the household hierarchy and became a beloved kid-brother to Buddy and a loving pet to the whole family.

These case studies each highlight different aspects of household influence on puppy development: Bella showed the impact of child-driven energy and the need for structure; Max demonstrated how a single, devoted owner can raise a secure pup with independence; Luna illustrated the benefits of a tranquil, consistent environment; and Rocky showcased peer mentorship and the importance of unified family training. Across all, common threads emerge: calm modeling, consistency, and structure were crucial in guiding the puppies through challenges. In each case, whenever those elements faltered (a lapse in consistency or an emotionally charged reaction), issues arose, but when those elements were present, progress was smooth. This mirrors the broader findings of our study that a family's behavior profoundly shapes a puppy's behavior – for better or worse – and with the right approach, we can tilt it very much for the better.

Collaborative Applications

Our "Family Matters" study offers valuable insights not just for individual families, but for the wider community of trainers, veterinarians, and researchers interested in optimizing canine development. The findings reinforce the idea that early environment and caregiver style are as important to puppies as they are to human children. Recognizing this opens several pathways for application and further inquiry:

1. Tailoring Training and Guidance to Family Profiles: One immediate practical application is for puppy trainers and veterinary behaviorists to incorporate household assessment into their guidance. Rather than a one-size-fits-all puppy class curriculum, professionals can use our findings to ask key questions about a new puppy's home life – e.g., "Are there young kids in the house?", "How hectic is your daily routine?", "Do you have other pets?", "How do you normally respond when the puppy misbehaves?". Based on the answers, specific advice can be given. For a high-energy family with children, a trainer might spend extra time teaching parents how to create calm time-outs and involve kids in training through structured games, emphasizing the need for routine amidst chaos. For a single owner, the vet might focus on preventing separation issues and encouraging wider socialization (perhaps recommending doggy daycare a few times a week if the owner works full days, as a supplement). The goal is to preempt problems by acknowledging the stressors or gaps each type of household might have. Our study essentially provides a knowledge base for what those typical stressors/gaps are. By sharing these findings through seminars or guides, we can help professionals give *family-tailored* advice. In fact, one outcome of this project is a planned **"Puppy Parenting Guide"** that will have chapters or sections like "Raising a Puppy in a Busy Family," "Raising a Puppy as a Working Single," "Raising a Puppy with an Older Dog," etc., compiling best practices drawn from our observations. This can be an accessible

whitepaper or e-book that vet clinics and training schools distribute. The tone will be supportive, acknowledging that each situation has pros and cons (no environment is hopeless, and none is perfect without effort) – much as our case studies showed.

2. Early Family–Puppy Match and Screening: Our findings could also inform how shelters, breeders, and rescue organizations place puppies into homes. Currently, placements often consider factors like yard size, work schedule, or breed experience of applicants. We suggest adding a "family environment" component to assess compatibility. For instance, a very timid puppy may do best in a calm, retired household like Luna's; our data showed that shy pups flourish with patient, low-key owners. Conversely, a high-drive, exuberant pup might actually thrive in a busy family with kids *if* that family is counseled on channeling that energy constructively. We envision developing a simple **Family-Puppy Fit Index** – a screening questionnaire that both assesses a family's environment (structure, energy, consistency) and perhaps their willingness to follow a model like JB. This index could highlight potential red flags (e.g., a family that scores very low on potential consistency – say, chaotic schedule, little agreement on rules – might be at risk for raising a less stable pup unless they receive additional support). It's crucial this not be used to *deny* anyone a puppy, but rather to customize the support plan. For example, a shelter could use it to decide, "This puppy is extra sensitive; let's place him with one of these quieter families on our list," or "If we place this excitable pup with this big family, let's ensure our volunteer follows up frequently to help them implement structure." Research collaborators could take this concept further by validating such a screening tool. Future studies might involve a larger sample of families filling out a questionnaire pre-adoption and then tracking puppy outcomes to refine which questions best predict success or difficulties. Over time, this could lead to an evidence-based matching system that increases the likelihood of a harmonious fit and reduces returns of puppies to shelters due to mismatched expectations.

3. Expanding the Scientific Evidence Base: From a research perspective, our study provides a template for how to rigorously evaluate puppy upbringing practices in real homes. We have generated rich data, but with 30 puppies it's still relatively small scale. We invite collaboration to replicate or expand on this work – for instance, a university team could enroll 100+ puppies to see if our observed correlations hold up broadly. They might incorporate control groups (e.g., families not specifically using JB methods) to compare how much difference the mentorship model makes when controlling for household type. One intriguing research question is: *Does the JB approach buffer puppies against the negative effects of a chaotic home?* Our study hinted that even in high-energy homes, puppies did okay if JB principles were applied; a larger comparative study could confirm this. Another question: *Are there sensitive periods where family influence is especially critical?* We noticed issues around 5-6 months that were nipped

in the bud – maybe a targeted intervention right before that age could be studied. Additionally, physiological measures like cortisol, heart rate variability, or even gut microbiome (stress can alter gut flora, and JB emphasizes wellness) can be added to deepen understanding of the mind-body connection in these scenarios. Collaborating with veterinary behavior researchers, we could design experiments to measure if puppies from calmer homes have measurably lower stress hormones during training, etc., providing hard data to complement behavioral observations.

4. Educational Outreach and Mentor Programs: The collaborative spirit of Just Behaving implies spreading knowledge and supporting others. We plan to use insights from this study to enhance our mentorship programs for new puppy owners. For example, we might develop a mentorship network where experienced “puppy raisers” (perhaps those who have been through JB with their own dogs) coach new families, focusing on specific family scenarios. A family with young kids could be paired with a mentor family who successfully raised a puppy with kids, to exchange tips and real-life strategies. The findings from our research give these mentor volunteers concrete evidence to share (“here’s why it’s so important to stay calm; a study showed strong correlation between yelling and puppy anxiety” – having data adds weight to advice that might otherwise be ignored as just opinion). For veterinary professionals, we aim to present this study as a continuing education topic, highlighting the role of the family in behavioral health. Often vets see a puppy for a 15-minute check-up and might only say generic things like “make sure to socialize him.” With our findings, they can be more pointed: if a puppy is very hyper in exam and the vet learns the home is hectic, they might counsel about providing more structure and mental enrichment rather than just labeling the pup “hyperactive.” The holistic approach where vet behaviorists consider the family context could improve treatment plans for issues like anxiety or aggression (which often have roots in early environment).

5. Refining Just Behaving Methods: Internally, the JB program itself benefits from this research by highlighting areas to improve or emphasize in our curriculum. For instance, seeing how the presence of a mentor dog aided development might encourage us to incorporate more supervised peer-dog interactions in our programs (perhaps arranging “puppy buddy” families that meet regularly so puppies get that mentor-like exposure if they don’t have a dog at home). The significance of consistency suggests we should double-down on coaching families on unified communication – maybe even have them draft a “family puppy charter” of rules during our orientation (some families essentially did this on their own during the study when they saw inconsistency issues). We also realized that providing specific guidance for families with children is crucial – we have since created kid-friendly training exercises (like the hide-and-seek game mentioned in Bella’s case) as part of our resources, so kids can participate in a calm way rather than

inadvertently encouraging bad behavior. The research has essentially allowed us to fine-tune our advice with confidence, supported by data and real examples.

Future Directions: This study was, to our knowledge, one of the first to systematically look at intra-model differences – i.e., all pups were raised with the same general philosophy, yet outcomes varied with family environment. A logical next step is to disseminate these findings in both academic and practical formats. We plan to publish a summary in a peer-reviewed journal of animal behavior to contribute to the scientific literature on early canine development. At the same time, we will produce a user-friendly whitepaper or booklet (as mentioned) for practitioners. We are also keen on exploring new collaborations: for example, partnering with a veterinary school to run a follow-up study that could include physiological health outcomes (does a calmer upbringing lead to healthier dogs with fewer stress-related illnesses? It's plausible!). Another idea is to test interventions: take families identified as "high risk" (say, very inconsistent ones) and give half of them an intensive coaching program while the other half gets standard advice, then see differences in puppy outcomes. This would directly evaluate how much actively improving family dynamics can change a puppy's trajectory, which could be powerful evidence to motivate all puppy owners to invest in that aspect, not just obedience classes.

Conclusion: The "Family Matters" project reinforces a simple but profound message: when it comes to raising a well-behaved, emotionally healthy dog, *how* you raise them – the home atmosphere, the love and leadership you provide, the consistency of your guidance – is just as critical as *what* you teach. A puppy's family is effectively its world, and shaping that world in a positive way sets the stage for success. For researchers and practitioners, this means broadening our focus from the dog in isolation to the dog-and-family unit. By continuing to collaborate and share knowledge across the domains of animal behavior science and on-the-ground training experience, we can develop innovative approaches like the JB mentorship model and back them with evidence. Ultimately, that leads to better outcomes: more confident dogs, fewer behavior problems, and happier human-canine families. We invite trainers, vets, behaviorists, breeders, and dog lovers to use these findings – whether it's through adopting our recommended practices, participating in follow-up studies, or simply spreading the word that *family life matters immensely in a puppy's development*. Together, we can refine the art and science of pairing the right puppy with the right home and raising every puppy to its fullest potential.