

**The Integrated Scientist-Practitioner:  
A New Model for Combining Research and Clinical Practice in Fee-For-Service Settings**

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### Abstract

American Psychological Association (APA) guidelines require that all psychologists be trained to integrate science and practice in their work. The majority of psychologists have been trained in a scientist-practitioner model to both *utilize* and *produce* scientific research. However, the day-to-day integration of research and clinical practice is rare for most psychologists. Changes in the healthcare system, increased emphasis on evidence-based practices, diminished funding for psychosocial research, and decreases in tenure track faculty positions mean that new models are needed for both clinical practice and research productivity. Although this rapidly changing professional landscape poses significant challenges, these changes may also create new opportunities to fulfill the ideal of an integrated psychological science. Some fee-for-service settings could be restructured based on social business models to promote research productivity among clinicians, improve clinical outcomes, and provide a new home for psychological researchers who would like their work to be more connected to the applied aspects of their science. In this paper we outline some of the reasons why, to this point, psychosocial research has never occurred in a robust fashion in private fee-for-service settings. We then outline some potential ways of overcoming barriers to conducting research outside of academia, including how to carve out and fund dedicated research time within a clinical practice setting. Finally, we provide a case example of a new business model to support this research, called the clinical-research social business model, in which profits from the income-generating activities of the business serve as a stable, internal funding source for in-house research endeavors.

*Keywords:* scientist-practitioner, social business model, practice-based research, business

The Integrated Scientist-Practitioner: A New Model for Combining Research and Clinical Practice in Fee-For-Service Settings

Despite the intention of the Boulder Conference more than 65 years ago (Raimy, 1950) and the American Psychological Association (APA) guidelines mandating that all accredited training programs in psychology emphasize the integration of science and practice when training would-be psychologists (APA, 2013), the day-to-day integration of science and practice remains elusive for most psychologists (Frank, 1984). Although the majority of psychologists practicing today are trained in the scientist-practitioner model, in which they have been specifically trained to both *utilize* and *produce* scientific research (Chang et al., 2008), most clinical psychologists work in private fee-for-service settings with little, if any, opportunity to engage in psychological research. The bulk of psychological research is produced by a small minority of psychologists working primarily in academic settings removed from clinical practice (Norcross & Karpiak, 2012). However, the rapidly changing professional landscape of both academia and clinical practice may create a new impetus for a more integrated science and practice of psychology within fee-for-service settings.

Funding sources that have typically supported the type of psychosocial research for which psychologists are well trained have weakened. Tenure-track academic positions have become increasingly rare, dropping from 45% of faculty positions in 1975 to 24% in 2011 (U.S. Department of Education [ED], 2013). Funding rates for psychosocial research from the National Institutes of Health (NIH) and the National Institutes of Mental Health (NIMH) are at the lowest levels in those agencies' history (NIH Office of Extramural Affairs, 2013b; NIH Office of Extramural Affairs, 2013a), a trend that is likely to continue (Gogtay & Insel, 2014). Funding is

shifting toward biological research and away from clinical trials, further weakening the prospects for psychological research (Insel, 2015). Other means to fund psychosocial research are needed.

Clinical practice is also rapidly changing. Discipline-specific changes such as dramatic increases in the number of new graduates from doctoral programs (APPIC, 2003, 2013) are putting downward pressure on insurance reimbursements. Significant cuts in reimbursement rates for psychologists in many markets (Goodheart, 2010) means that private practice is much more difficult for psychologists in those areas. Changes due to healthcare reform such as accountable care organizations, along with other market forces, are leading to significant consolidation in health care. Increased demands for evidence-based practice and outcome measurement are changing the way services are organized and funded. Although these changes may generate apprehension among some, disruption can also create the possibility for positive change. We believe that at least some private fee-for-service settings may thrive from considering how to include research as a more integral part of their business model.

In this paper, we outline some of the reasons why the production of scientific knowledge has never occurred in a robust fashion in private fee-for-service models. We then outline theory and methods for overcoming these barriers and describe how to carve out and fund dedicated research time within a fee-for-service context. Finally, we describe a case example of a business model, based on social enterprise concepts (Yunus, 2011), we believe may be an option for some psychologists looking to develop more integration of research and practice in their work. This clinical-research social business model, which has been manifest at our site, uses the profits from the income-generating activities of the practice serve as an internal, stable funding source for in-house research endeavors.

**Conducting Research in Private Fee-For-Service Settings: Barriers, Solutions, and Benefits**

Although many factors contribute to a dissonance between research and clinical practice, in this paper we outline two primary sets of barriers that commonly arise: 1) how monetary contingencies in fee-for-service settings work against the unstructured, creative time needed to produce research and 2) how logistical and social barriers often impede robust involvement in research activities in such settings. We then outline some solutions to these barriers.

### **Monetary Barriers: The Positive and Negative Role of Money**

In private practice and other fee-for-service settings, the tight contingency between seeing a client and the extrinsic reward of receiving money results in a relatively narrow focus on seeing more and more clients. While this is probably beneficial from a purely economic standpoint, this same contingency can harm research productivity. Immediate monetary rewards trump delayed rewards (Critchfield & Kollins, 2001), reduce intrinsic motivation and creativity (Hennessey & Amabile, 1998), and result in decreased sharing of information and expertise among colleagues (Lin, 2007). Scientific research is a prototypical example of the kind of work that is harmed by tight extrinsic contingencies; it is work that requires broad and complex conceptual thinking, collaboration with others, and a focus on innovative solutions tied to long-term goals (Woodman, Sawyer, & Griffin, 1993). Fee-for-service clinicians are not paid for research endeavors. In addition, many of the contingencies that sustain ongoing research efforts among academics, such as the promise of tenure and esteem from colleagues, are absent in fee-for-service settings. The result is that this immediate and extrinsic monetary reward combined with the relatively reliable experience of helping a suffering human being that are present for engaging in direct service clinical work dominates over the extremely delayed, probabilistic and financially weak rewards of conducting research. In the fee-for-service context, psychologists are

increasingly shaped toward a tighter focus on clinical productivity at the cost of competing activities, such as research.

### **Managing Monetary Contingencies to Support Research**

The intrinsic motivation to conduct research needs to be guarded carefully so that it is not overshadowed by competing extrinsic rewards for engaging in clinical work. One way to protect intrinsic motivation from the possible negative effects of monetary contingencies is to pay staff a fair, fixed salary to support the research portion of their work. This amount needs to be similar to what they would make doing clinical work. The goal is to take money “off the table” so that it is no longer a significant influence on what the person does with that portion of their time.

In contrast, maintaining relatively tight contingencies between money and activities that directly generate revenue may be more helpful from a financial standpoint. Since the main revenue in a clinical fee-for-service business comes from therapy appointments, paying staff on a commission basis for the portion of their time spent on clinical activities ties their income to the revenue they directly bring into the business. The result is that this extrinsic reward is likely to help clinician-researchers maintain a focus on keeping a full schedule during the portion of their time devoted to clinical work. Commission-based clinical income also has the benefit of increasing variable costs (i.e. those costs that rise and fall with a business’ production volume) while decreasing fixed costs for the business (i.e. costs that remain stable regardless of production such as rent, insurance, marketing expenses, fixed salaries, etc.), which serves to lower overall risk to the business enterprise.

The model described above of paying staff a fixed salary for research activities that don’t directly generate revenue can be created by nesting research inside a social enterprise organized around concepts such as the low-profit limited liability corporations, B-Corps, or social

businesses (Yunus, 2011). While the central organizing goal in for-profit corporations traditionally has been to maximize profits for shareholders, social businesses are organized to maximize the social good. While a social enterprise does need to attend to the financial bottom line, its focus is primarily on maximizing social good based on values such as environmental stewardship, high quality of life for employees, or contribution to the community, such as through psychosocial research. In these sorts of businesses, the revenue generated from profit-making activities typically subsidizes other activities that focus on the non-monetary goals of the business, goals which are explicitly stated and integrated throughout the business. For example, a fee-for-service therapy clinic set up as a social business might reinvest profits that would typically go to shareholders into activities that are not directly income-generating but promote the social good, such as providing low fee services or funding scientific research.

In sum, in order to overcome the monetary barriers to conducting research in a fee-for-service setting, research work must not be put in competition with clinical work. Instead, finding ways to alter contingencies on an organizational level such that clinical work becomes a means of paying for research work may be one viable solution to funding research productivity in fee-for-service settings.

### **Logistical and Social Barriers and Solutions**

While some psychologists in clinical practice have no desire to be involved in research once they leave graduate school, for those who do, there are significant logistical and social barriers to research involvement outside of academia despite strong interest and ability. There is frequently little guidance given on how a clinician-researcher operating outside of an academic or other research institution is supposed to conduct quality research without institutionally provided access to resources like journal articles, research assistants to enter data, or even basic



equipment such as statistical programs. Below we present some of the most common barriers to conducting research outside of academia and offer some potential solutions.

**Barrier: IRBs.** Gaining access to an institutional review board (IRB) for independent ethics review can be one of the most challenging and costly barriers to conducting research outside of academia (Gold & Dewa, 2005). IRB oversight is generally needed in order to ensure ethical methods, publish findings and avoid legal risks. Typically, IRBs are found within academic institutions or large research or medical establishments. Private IRBs that cater to biomedical and pharmaceutical researchers are prohibitively expensive. Finding an academic as a collaborator is one solution. However, this limits the independence of the clinician-researcher and frequently puts her or him in a subordinate role to the academic-researcher. However, without a formal collaboration with a faculty researcher, academic institutions are often reticent to open their IRB to outsiders.

**Solution: Creating an independent IRB.** Contrary to the common misperception that IRBs must operate under the purview of an academic institution or other large organization, U.S. federal laws place few limitations on who can create an IRB. With the help of consultants and attorneys, our organization banded together with 6 other non-academic organizations across the country to create a non-profit corporation to house an independent IRB that reviews research projects from the member organizations. Member organizations are all for-profit companies focused on the provision of evidence-based psychotherapies and/or on the dissemination of evidence-based psychosocial interventions. Each member organization pays a small fee to the non-profit to cover the overhead involved in running the IRB. As with most academically-based IRBs, most of the work involved in this private IRB is done on a volunteer basis by members.

The result is a functioning, highly affordable IRB that is approved by the federal government and that is able to serve as the IRB for federal grant funding.

**Barrier: Journal access.** Access to scientific literature and library resources can be more difficult for the independent researcher compared to the university-based researcher. Fees for access to journal databases are prohibitively expensive for all but large institutions and per-download fees for articles are often more than \$30 per article. Some clinicians may be able to obtain adjunct appointments at academic institutions in return for these perks, but these appointments often are unpaid, and the return on investment can be difficult to rationalize.

**Solution: Journal Access.** Though methods for obtaining scientific publications vary by locale, many state-funded universities are required to make their journal databases accessible to the public. Some public library systems also provide good access to scientific journals or databases. In addition, the advent of Google Scholar and the increasing use of self-archiving through websites such as ResearchGate or PubMed mean that articles are increasingly available outside of libraries. Finally, research assistants recruited from local universities often have access to their university's journals. As part of their research duties, they can be enlisted to conduct literature searches, both providing training for them and saving the researcher time.

**Barrier: Lack of assistants.** The academic-based researcher typically has an entire lab of students and assistants at their disposal. Research assistants often form the backbone of research teams and conduct much of the data collection and data entry that occurs. Without these resources, it would be difficult for many researchers to be productive.

**Solution: Recruiting research assistants.** Outside of academia, research assistants can be recruited by developing a reputation in the community for research and by networking with colleagues at local academic institutions. In our case, through developing a reputation as a site

where students can get meaningful research experience, we have been able to find many excellent volunteer research assistants. Often, these are people who have a bachelor's degree and are looking for research experience in preparation for graduate training in psychology or are psychology doctoral students from local universities looking for additional experience.

**Barrier: Isolation.** Few scientists are productive in isolation. Academia is an environment in which scientific research thrives, in part, because it offers a pre-made community with institutional supports that are needed in order to be productive in research. Most scientists do not have the expertise to complete all the tasks involved in research on their own. Access to collaborators, alternative perspectives, and professional consultation is essential. The clinician-researcher in a traditional fee-for-service setting is likely to be surrounded mainly by clinical colleagues who may have limited interest in or knowledge of the process of scientific research and who may see such research as somewhat removed from to their daily struggles with clients.

**Solution: Developing collaborations.** While academia offers a premade community of potential collaborators, psychologists wanting to conduct research outside of academia need to persistently and mindfully cultivate relationships with others who can serve as important collaborators and connections to the broader world of research. While some barriers do exist to forging such connections, our experience has been that through persistence and attention these barriers can be overcome, resulting in meaningful, ongoing, and mutually beneficial collaborations with colleagues who genuinely share similar interests.

### **Benefits of Conducting Research Outside of an Academic Setting**

While the above mentioned barriers do pose significant challenges to the clinician-researcher, we believe that these barriers are not insurmountable. Non-academic settings may offer unique benefits that may not be present for the researcher based in a more traditional

research setting. In addition, having a more integrated clinical-research practice may also benefit the clinical-researcher's clinical work beyond what is typically afforded in the traditional fee-for-service settings focused solely on the provision of clinical services.

**Freedom from external constraints.** Grant-funding agencies change their priorities rapidly and the availability of funding depends strongly on current economic conditions and the political, scientific, and cultural zeitgeist of the moment. Researchers are often forced to conform and sometimes drastically change their research programs to match these dictates. In addition, grant funded research often follows a boom and bust pattern that requires rapid scaling up and down of resources over short periods of time, leading to much waste.

In contrast, conducting research within a fee-for-service setting may allow the development of research programs that are more secure because of the decreased or even abolished reliance on external grant funding. The revenue and overhead involved in an established fee-for-service practice tends to be fairly stable over time. A more stable funding line allows infrastructure to be built more systematically, ultimately allowing research to be conducted more efficiently and with less waste. In addition, staff can be hired and shifted to meet various research needs in a manner that is unrestricted by the regulations of funding agencies.

**Ability to focus on practical impact.** Another benefit of conducting research in a private fee-for-service setting is that the researcher is free from the "publish or perish" focus that is often found in academia, wherein publication becomes the end game, rather than genuine scientific progress (Neill, 2008). Since sheer quantity of publications is not prized in non-academic settings, researchers in these settings are able to focus on lines of research that require longer timelines. This also allows a focus on other means of progressing science, such as supporting the dissemination and application of empirical findings and evidence-based practices.

**Ease of integration of science and practice.** The demands of an academic position often preclude academics from having any sizable clinical practice. For those who do maintain some clinical practice, it is usually completely separate from their role as an academic-researcher. The private fee-for-service setting allows clinician-researchers to be directly involved in both clinical and research endeavors in an integrated way that has eluded most psychologists.

**Lack of bureaucracy.** In academia, there are committees to report to, seemingly endless paperwork to be filled out, administrators and department chairs from whom to seek approval, and donors to appease. All of these can be barriers to truly independent research which are simply not present in a more streamlined business setting.

**Potential for improved clinical practice.** In addition to the above benefits for researchers of having an integrated clinical-research practice, there are also likely benefits seen in terms of service delivery. Quality improvement efforts can be conducted in ways that lead to generalizable knowledge and publications. Outcome studies may incorporate training in evidence-based practices that can then be used clinically. Progress monitoring, which is increasingly emphasized by payers and also shown to result in improved outcomes and reduced rates of treatment failure (Meier, 2014), can be seamlessly incorporated into the clinical context, while simultaneously providing data for publication. As such, being able to actively contribute to psychological research within a fee-for-service setting may not only offer professional variety and opportunities to collaborate with others in a way that is often lacking in an exclusively clinical practice, but it may actually improve clinical outcomes for the organization.

For these reasons and others, we propose that finding ways to address the barriers to conducting scientific research in fee-for-service settings is not only possible, but can also be worthwhile given the many benefits of doing such work outside of traditional academic settings.

### **Case Study: Portland Psychotherapy Clinic, Research, and Training Center**

The rest of this paper outlines the implementation of the ideas presented above as applied in our particular setting, Portland Psychotherapy Clinic, Research, and Training Center (Portland Psychotherapy), based in Portland, Oregon.

### **Why We Chose to Create a Business to Fund Research Outside of Academia**

Both of the authors are clinical psychologists trained in the scientist-practitioner model. Although differing in career emphasis, both highly value the integration of science and practice. One author (JBL) didn't want to have to give up all clinical work in order to pursue an academic-research career, while the other (JTL) didn't want to abandon the idea of contributing to scientific research in order to pursue her passion for clinical work.

Another impetus for creating a business model that would fund psychological research outside academia was the observation, beginning in about 2007, that external funding for psychosocial research appeared to be on a long-term downward trend. Although one of the authors (JBL) had worked in grant-funded research positions through 2009, observing what appeared to be on the horizon regarding decreases in available funding led him to shift his focus away from continuing to pursue grants in favor of developing an alternative business model that would provide a more stable source of funding for his research.

A final driver for creating a novel business model was the desire to live in Portland, Oregon for personal reasons. The ability to create a business where you live is another benefit of creating a research career inside a fee-for-service setting. The researcher does not need to leave behind family, friends, and a community they love in order to have a viable research career.

### **A Model for Integrating the Science and Practice of Psychotherapy**

Formed in 2007 by the two authors, Portland Psychotherapy is based on a unique model, which we refer to as the clinical-research social business model. This model is one in which the income-generating activities of the organization (e.g. provision of clinical services and training for professionals) serve as an internal, stable funding source to support research being conducted by staff at the center. While the center is legally organized as a for-profit-corporation, it is similar to a non-profit in that the owners (the authors) do not derive a profit from the corporation beyond the revenue they bring into the center through their billing. In traditional for-profit clinical settings, all profits that remain after salaries and overhead are paid typically go to shareholders. In contrast, in the clinical-research social business model, all profits go to support research activities and other non-money making activities that promote the social good, such as funding a postdoctoral fellowship that can provide for low fee clinical services. What would be shareholder profits in other business structures become a relatively stable, internal funding source for research, thereby negating the need to spend time engaging in activities designed to procure external research funding, such as grant writing. This model allows the center to engage in the various activities of the scientist-practitioner model including the provision of clinical services, training in science-based therapies, and conducting scientific research, in a more integrated and financially sustainable way.

**Clinical services.** Portland Psychotherapy specializes in providing science-based therapy, most notably Acceptance and Commitment Therapy (ACT; Hayes, Strosahl, & Wilson, 1999). Given that our ability to conduct research in our center is reliant not on grants, but rather on internal funding generated primarily through the provision of clinical services, we needed to maximize the profit margin on those income generating services. At the same time, in keeping with our core organizational values of inclusivity, social justice, and being of service to our

broader community, it was important that our structure ensure that we are able to serve clients across the socioeconomic spectrum and not just those with the financial means to pay high rates out of pocket. We have addressed these two, potentially competing goals in two primary ways. First, our clinicians are on relatively few insurance panels. This allows clinicians to be paid their full fee for most of their clients, rather than the reduced rates offered in exchange for contracting with insurance companies. This still allows most clients to use their insurance to cover a significant portion of the cost of services while the slightly higher revenue per hour creates the margin that can be used to fund unpaid research activities.

Second, participation on few panels is possible because of effective marketing of our highly specialized services. Rather than being a general service mental health center that tries to meet the needs of all, we focus on providing specialist care linked to the expertise of our clinicians and researchers. Our goal is to provide the best care possible for the specialties that we serve and to be a knowledgeable source of referrals for those specialties that we do not offer. Our marketing allows clients who value science-based mental health care and who are willing to pay a little more for specialist services to find us. The result is that most of our clients are middle class individuals who choose to go out-of-network to purchase our services. Surveys of new clients indicate that our emphasis on science-based treatments (82%), a specialty in ACT (65%), and the fact that most of the psychologists on staff are also clinical researchers (57%) were either somewhat or very important factors in their decision to seek treatment at our center.

It was also important for our model to allow for the provision of low fee and sliding scale services to those in financial need. While all the clinicians at our center provide some reduced fee services, the majority of these services are made possible through our postdoctoral fellowship program, through which psychologist residents provide low-fee and sliding-scale services to



clients without insurance. In 2014, for example, clients receiving reduced fee and sliding scale services accounted for approximately 16% of all the sessions conducted at our center. Being able to generate a higher profit margin from insured and full-fee clients frees up resources to be able to offer sliding scale services to those without insurance and partially offset the costs of the postdoctoral fellowship. The result is a client population that is socioeconomically diverse but who share a value of science-based mental healthcare.

**Training in evidence-based therapies.** A core part of the mission of Portland Psychotherapy is giving back to the wider professional community. This occurs in part through providing training and consultation services locally and internationally, hosting a peer consultation group, and bringing in outside speakers for training events open to local professionals. Our goal is to be a hub for the dissemination of evidence-based practices in the local community and beyond. In 2014 we hosted or co-hosted 7 paid training events through our center. In addition, some staff travel across the country and internationally to provide training events to other organizations. These training activities generate income that goes directly to support the research conducted at the center. Training events also serve a marketing function as colleagues and other potential referral sources who attend these events become aware of the center's clinical services.

**Research production.** Five of the eight full-time clinical staff at Portland Psychotherapy have dedicated research time, ranging from one to two days per week, for which they receive a fixed salary. In addition, since its inception, the center has funded seven postdoctoral fellowships, which have typically consisted of three days a week of clinical training and two days per week of dedicated research time. Research salaries are funded directly from the proceeds of the income-generating services at the center (i.e. clinical and training services). This

stable, fixed research salary allows our clinical-researchers to focus on furthering their lines of research rather than pursuing external means of funding for that research. This also allows the clinician-researchers to devote more time to clinical and/or training activities, which are a more reliable source of income, rather than chasing grants, an increasingly less reliable source of income.

The research conducted at Portland Psychotherapy is varied and includes projects focused on basic research on perspective taking and false memory, longitudinal research on predictors of substance misuse, interventions for chronic self-criticism and shame, dissemination studies, and interventions to reduce mental illness stigma. Many of these research endeavors are joint collaborations with other academic or non-academic organizations, while others are completely “in house” with all research design, data collection, and analysis coming from within Portland Psychotherapy. Research by Portland Psychotherapy staff is regularly published in peer-reviewed journals (e.g. Guinther & Dougher, 2014; Luoma, Kohlenberg, Hayes, & Fletcher, 2012; Platt & Freyd, 2015; Thompson, Luoma, & LeJeune, 2013) with seven publications published or accepted for publication in 2014 alone. A more complete listing of staff publications can be found on our website at <http://www.portlandpsychotherapyclinic.com/training/publications>.

### **Supporting Motivation and Managing the Influence of Money**

A key factor in the success of our model and its hopeful generalizability beyond our particular setting relates to how motivation and money have been addressed. We would contend that issues around the influence of money and alternative motivators must be attended to with significant intentionality and must align with the values of any organization which hopes to adopt this clinical-research social business model.

Money, when functioning as an extrinsic reinforcer, can differentially impact productivity depending on the work context and product to be generated. In endeavors requiring creative or collaborative problem solving, as is the case in most research activities, tight contingencies around an extrinsic reinforcer such as money may have deleterious effects (Woodman et al, 1993). In our model, staff are paid a fixed salary for their dedicated research time with the goal of reducing the influence of money as a motivator for conducting research. Instead, we focus on supporting the *intrinsic* motivation of staff to conduct effective lines of quality research. In contrast, most staff are paid on a commission basis for time engaged in clinical activities, where the beneficial effects of extrinsic rewards can help motivate a focus on efficiently managing clinical time and generating revenue.

In a context such as ours, where collaboration and collegial support are essential to productivity, we also needed to attend to the effects of money on group-level dynamics. Since external reinforcers, such as money, can result in decreased sharing of information and expertise among colleagues (Lin, 2007) and increased unethical and selfish behavior (Tang et al., 2008), our hiring policies screen for potential staff who demonstrate high levels of intrinsic motivation to excel, a collaborative disposition, and shared values. In addition, attention is paid to group-level dynamics and complementarity with current staff during the hiring process so as to facilitate a collaborative environment. Applicants who appeared to be competitive have been passed over in favor of selecting candidates who appeared more collaborative and flexible. We have also selected individuals with expertise that complement rather than compete with current staff. The goal is a stronger organization where group cooperation is maximized. This organizational emphasis on cooperation and collaboration may be attractive to researchers put off

by the often competitive and, at times, conflict-prone culture found in some academic departments.

In addition, our organization relies on three overarching principles, autonomy, mastery, and purpose (Pink, 2011), to sustain intrinsic motivation and manage the influences of money among our staff. The principles are based on research on the effects of extrinsic versus intrinsic reinforcement on motivation (Grant & Berry, 2011), self-determination theory (Ryan & Deci, 2000), job control (Bond & Bunce, 2003), and concepts from contextual behavioral science on the role of values and choice (Dahl, Lundgren, Plumb, & Stewart, 2009).

**Autonomy.** Self-direction generally increases productivity, creativity, and overall job satisfaction, at least for relatively engaging and non-menial work (Mottaz, 1985). Job control, or the perceived ability to exert influence over one's work environment, is one of the most robust predictors of satisfaction and productivity in all of workplace psychology (Bond & Bunce, 2003). Increased autonomy and flexibility are among the most important benefits cited by psychologists working in independent practice settings (Nash, Norcross, & Prochaska, 1984) and are also associated with increased research productivity among those in academia (Kahn & Scott, 1997). In the service of strengthening intrinsic motivation among staff, Portland Psychotherapy actively supports staff autonomy and sense of choice in their professional lives. Staff have flexible work schedules and caseloads, as well as significant say in how much of their time is spent on research, training, or providing clinical work. Staff have revenue targets that they are asked to meet, but have significant discretion about how they achieve those targets. For staff who have paid research time, we attempt to maximize their level of choice in selecting which research projects they would like to work on, with whom, and in what capacity. To support this sense of choice, we recently instituted a collaboratively reviewed internal grant program, and have begun

to disperse our first \$10,000 in grants to staff who applied. These monetary awards from the internal grant are in addition to the fixed salary clinical-research staff are already paid for their research time. We seek to contribute to psychological science, but how each staff member chooses to do that is largely left to the individual to decide.

**Mastery.** Mastery is the intrinsic desire to get better at something that matters to an individual (Pink, 2011). Staff at Portland Psychotherapy are encouraged to develop expertise and are supported, financially and otherwise, in the development of mastery in their self-identified areas of expertise. Staff are provided with mentorship on how to be active learners and how to develop expertise. All staff have a discretionary training and education budget which they can spend in any way they deem fit. Staff with expertise in a particular area are encouraged to function as consultants and support others' development. Regularly held research lab and clinical development meetings allow staff to share their knowledge with others in the center in a collaborative environment. Again, as staff are not competing for limited funding dollars or coveted tenure positions, there is a heightened sense of collaboration rather than competition at the center. Staff are also encouraged to determine their own clinical, research, and training goals. Processes are in place to support them in regularly reviewing their goals, problem solving barriers to goal attainment, and setting new goals.

**Purpose.** Intrinsic motivation is also supported by tying work activities to shared and individual values and connecting day-to-day work to a larger sense of purpose. Intrinsic motivation is most strongly associated with increased creative output when individuals are prosocially motivated to take the perspective of others (Grant & Berry, 2011). A sense of shared purpose is one of the strongest intrinsic motivators at work at our center. The unique employment model the center offers, as well as the intentional hiring practices, have resulted in a

team of therapists and clinician-researchers who are exceptionally skilled and self-motivated to excel. Given the level of talent and drive of staff at the center, it is almost certain that they could find successful employment elsewhere in medical settings, academia, or solo private practice. However, each has chosen to work at Portland Psychotherapy, at least in part, because they resonate with the mission of the center and with a common sense of purpose and shared values which include social justice, inclusivity, community, and using science to address the problems of human suffering. In developing the model for the center, there was, and continues to be, an intentional focus on building a culture and set of practices that connect employees (as well as the clients we serve) with their most central life values, and to link work activities to those larger patterns of purpose in an intentional way. For example, even the way research is funded at the center is explicitly tied back to this sense of purpose; clinician-researchers are able to honor clients' meaningful work by putting the money clients have invested in the center to good use through the research they conduct. In turn, clients choosing to come to the center are made aware through marketing materials and prominent thank you signs in the waiting rooms that their choice to seek therapy at Portland Psychotherapy directly contributes to a greater good, with a portion of their session fees going into research to address the problems of human suffering.

### **Outcomes to Date**

While Portland Psychotherapy was formed in 2007, significant efforts toward growth and the development of infrastructure did not begin until 2010. In the ensuing five years, much has been accomplished. Total staff has increased from four to twelve including 8 full time clinical staff (6 licensed psychologists, 1 licensed clinical social worker, and 1 psychologist resident), 1 part-time licensed psychologist, and 3 administrative staff). A stable funding line for research supporting more than 10 current projects has been established, amounting to approximately 18%

of center revenue (at the time of this writing). Clinical services are provided to over 100 individual therapy clients per week. More clients are served through time-limited groups and classes offered at the center. We have hosted over 20 training events for therapists. We have provided research experience opportunities and mentorship for at least 12 research assistants, several of whom have gone on to graduate training programs. Since 2010, 24 peer-reviewed articles have been at least partially supported through internal funding, with additional publications in non-reviewed outlets (e.g., book chapters) and several more articles are currently in preparation or under review. In sum, we believe the research productivity of our center rivals that of a successful grant-funded academic and has been accomplished without any outside grant funding.

### **Generalizability**

Given that, to our knowledge, this is the first model of its kind, its future viability and its generalizability awaits to be seen. However, we believe that with some context-specific adaptations, the clinical-research social business model could be established in many moderate sized urban areas. Portland Psychotherapy is not a boutique practice reliant on a large population of wealthy clients, but instead relies on middle class clients who are willing to pay a little extra for expert care. There are approximately 104 metropolitan areas in the US with populations over 500,000. We believe most of these would have middle class populations of sufficient size to support this type of organization. If revenue sources were developed that were not dependent on face-to-face services, such as telehealth, then this model could conceivably be implemented almost anywhere.

A specific set of skills is needed by the team that runs the center. They need to know how to conduct programmatic research, have or develop an understanding of business and marketing,

and be able to provide excellent evidence-based services and develop a reputation for the same. Any group of psychologists in a moderate sized urban area with these characteristics should be able to replicate our model with sufficient consultation and support.

### **Conclusion**

Despite a continuing emphasis on the integration of the science and practice of psychology, there continues to be the longstanding chasm between psychologists who are the *producers* of scientific research (i.e., academics) and psychologists who are the *utilizers* of scientific research (i.e., clinicians). We propose that much more research could be conducted inside clinical settings if they were structured as social enterprises aimed at supporting scientific research as a social good. We have found the barriers to conducting quality scientific research outside of academia are not insurmountable and, in fact, doing so may offer many benefits not afforded the academic-researcher. Being intentional about contingencies influencing motivation and also about creating communities in which contribution to science is encouraged and supported is essential for those seeking to integrate research and applied practice outside a traditional academic setting.

We have proposed the clinical-research social business model for conducting research outside of a traditional academic setting. While the specific way in which this model is enacted is unique to our setting, resources, goals and values, we hope it provides some ideas and opens a dialogue so that those who seek to both utilize and contribute to scientific research can find new and expanding environments to support that work. Perhaps by doing so, these changing times of decreased tenure-track positions and decreased financial reimbursement of private practices might result in something our field hasn't been able to do in the nearly 65 years since the



Boulder Conference--create an environment in which the science and practice of psychology can be truly integrated.

### References

- American Psychological Association (2013). Guidelines and principles for accreditation of programs in professional psychology. Retrieved from <https://www.apa.org/ed/accreditation/about/policies/guiding-principles.pdf>
- Association of Psychology Postdoctoral and Internship Centers (2003). *2003 APPIC match statistics: Match report from the APPIC board of directors*. Retrieved from <http://www.appic.org/Match/MatchStatistics/MatchStatistics2003.aspx>.
- Association of Psychology Postdoctoral and Internship Centers (2013). *2013 APPIC match statistics combined results: Phase I and phase II*. Retrieved from <http://www.appic.org/Match/MatchStatistics/MatchStatistics2013Combined.aspx>
- Bond, F. W., & Bunce, D. (2003). The role of acceptance and job control in mental health, job satisfaction, and work performance. *Journal of Applied Psychology, 88*(6), 1057-1067.
- Chang, K., Lee, I. L., & Hargreaves, T. (2008). Scientist versus Practitioner—An abridged meta-analysis of the changing role of psychologists. *Counseling Psychology Quarterly, 21*(3), 267-291.
- Critchfield, T. S., & Kollins, S. H. (2001). Temporal discounting: Basic research and the analysis of socially important behavior. *Journal of applied behavior analysis, 34*(1), 101-122.
- Dahl, J., Lundgren, T., Plumb, J., & Stewart, I. (2009). *The art and science of valuing in psychotherapy: Helping clients discover, explore, and commit to valued action using Acceptance and Commitment Therapy*. Oakland, CA: New Harbinger Publications.
- Frank, G. (1984). The Boulder Model: History, rationale, and critique. *Professional Psychology: Research and Practice, 15*(3), 417-435.

Gogtay, N., & Insel, T. (2014) *Changing NIMH clinical trials: Efficiency, transparency, and reporting.*

Retrieved from <http://www.nimh.nih.gov/funding/opportunities-announcements/clinical-trials-foas/changing-nimh-clinical-trials-efficiency-transparency-and-reporting.shtml>.

Gold, J. L., & Dewa, C. S. (2005). Institutional review boards and multisite studies in health services research: is there a better way? *Health services research, 40*(1), 291-308.

Goodheart, C. (2010). Economics and psychology practice: What we need to know and why. *Professional Psychology: Research and Practice, 41*(3), 189-195.

Grant, A. M. & Berry, J. W. (2011). The necessity of others is the mother of invention: Intrinsic and prosocial motivations, perspective taking, and creativity. *Academy of Management Journal 54*(1), 73-96.

Guinther, P. M. & Dougher, M. J. (2014). Partial contextual control of semantic false memories in the DRIFT paradigm. *The Psychological Record, 64*, 457-473.

Hayes, S. C., Strosahl, K., & Wilson, K. (1999) *Acceptance and commitment therapy: An experiential approach to behavior change.* New York: Guilford Press.

Hennessey, B. A., & Amabile, T. M. (1998). Reality, intrinsic motivation, and creativity. *American Psychologist 53* (6) 674-675.

Insel, T .R. (2015). *The Anatomy of NIMH funding.* White paper downloaded from:

[http://www.nimh.nih.gov/funding/funding-strategy-for-research-grants/white-paper\\_149362.pdf](http://www.nimh.nih.gov/funding/funding-strategy-for-research-grants/white-paper_149362.pdf)

Kahn, J. H., & Scott, N. A. (1997). Predictors of research productivity and science-related career goals among counseling psychology doctoral students. *The Counseling Psychologist, 25*(1), 38-67.

Lin, H. F. (2007). Effects of extrinsic and intrinsic motivation on employee knowledge sharing intentions. *Journal of Information Science, 33*(2), 135-149.

- Luoma, J. B., Kohlenberg, B.S., Hayes, S. C., & Fletcher, L. (2012). Slow and Steady Wins the Race: A Randomized Clinical Trial of Acceptance and Commitment Therapy Targeting Shame in Substance Use Disorders. *Journal of Consulting and Clinical Psychology, 80*, 43-51.
- Meier, S. T. (2015). *Incorporating Progress Monitoring and Outcome Assessment in Counseling and Psychotherapy: A Primer*. Oxford, UK: Oxford University Press.
- Mottaz, C. J. (1985). The relative importance of intrinsic and extrinsic rewards as determinants of work satisfaction. *The Sociological Quarterly, 26*(3), 365-385.
- Nash, J., Norcross, J. C., & Prochaska, J. O. (1984). Satisfactions and stresses of independent practice. *Psychotherapy in private practice, 2*(4), 39-48.
- National Institutes of Health Office of Extramural Research (2013a). *Research project grants: Applications, awards funded through direct NIH appropriation, success rates, and total funding, by institute/center*. Retrieved from [http://report.nih.gov/success\\_rates/index.aspx](http://report.nih.gov/success_rates/index.aspx).
- National Institutes of Health Office of Extramural Research (2013b). *Success rates of NIH R01 equivalent and research project grant applications, 1970-2013*. . Retrieved from [http://report.nih.gov/success\\_rates/index.aspx](http://report.nih.gov/success_rates/index.aspx).
- Neill, U.(2008). Publish or perish but at what cost? *Journal of Clinical Investigation, 118*(7), 2368-2368.
- Norcross, J. C., & Karpiak, C. P. (2012). Clinical psychologists in the 2010s: 50 years of the APA Division of Clinical Psychology. *Clinical Psychology: Science and Practice, 19*(1), 1-12.
- Pink, D. H. (2011). *Drive: The surprising truth about what motivates us*. New York: Penguin.
- Platt, M. & Freyd, J. J. (2015). Betray my trust, shame on me: Shame, dissociation, fear, and betrayal trauma. *Psychological Trauma: Theory, Research, Practice, and Policy, 7*(4), 398-404.
- Raimy, V. (Ed.) (1950). *Training in clinical psychology*. New York: Prentice-Hall.

- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78.
- Spector, P. E. (1986). Perceived control by employees: A meta-analysis of studies concerning autonomy and participation at work. *Human Relations*, 39(11), 1005-1016.
- Tang, T. L. P., Sutarso, T., Davis, G. M. T. W., Dolinski, D., Ibrahim, A. H. S., & Wagner, S. L. (2008). To help or not to help? The Good Samaritan Effect and the love of money on helping behavior. *Journal of Business Ethics*, 82(4), 865-887.
- Thompson, B., Luoma, J. B., & LeJeune, J. T. (2013). Using Acceptance and Commitment Therapy to Guide Exposure-Based Interventions for Post Traumatic Stress Disorder. *Journal of Contemporary Psychotherapy*, 43, 133-140.
- United States Department of Education. (2013). *Tabulation by AAUP Research Office of trends in instructional staff employment status, 1975-2011*. Retrieved from [http://www.aaup.org/sites/default/files/files/AAUP\\_Report\\_InstrStaff-75-11\\_apr2013.pdf](http://www.aaup.org/sites/default/files/files/AAUP_Report_InstrStaff-75-11_apr2013.pdf).
- Woodman, R. W., Sawyer, J. E., & Griffin, R. W. (1993). Toward a theory of organizational creativity. *Academy of management review*, 18(2), 293-321.
- Yunus, M. (2011). *Building social business: The new kind of capitalism that serves humanity's most pressing needs*. New York: Public Affairs.