PASAzine

Spring 2010

Letter From The Editors

When we first decided to make the PASAzine, we thought this would be a great opportunity to bring members together and foster community in a new way. That is, we were aware of how difficult it often is for many PASA students to come to weekly meetings and wanted to offer another space for more voices to be heard. By creating this journal, we sought to bring these voices together.

Another motivation for this journal has been the need to document and preserve PASA history while sustaining visibility for PASA in SOURCE as well as in the larger Hampshire community. This journal was born in conjunction with the return of PASA Night, and we hope that it will continue as an annual project after we both leave.

Our vision for this journal was relatively simple; we wanted to compile a diverse collection of student work—creative as well as analytical—of which we could all feel proud. There was no overarching theme because we did not want to limit the range of submissions; rather, we wished to present PASAzine as a true reflection of its members. Some of us are poets, some of us are visual artists, some of us are scientists, and some of us are all of the above.

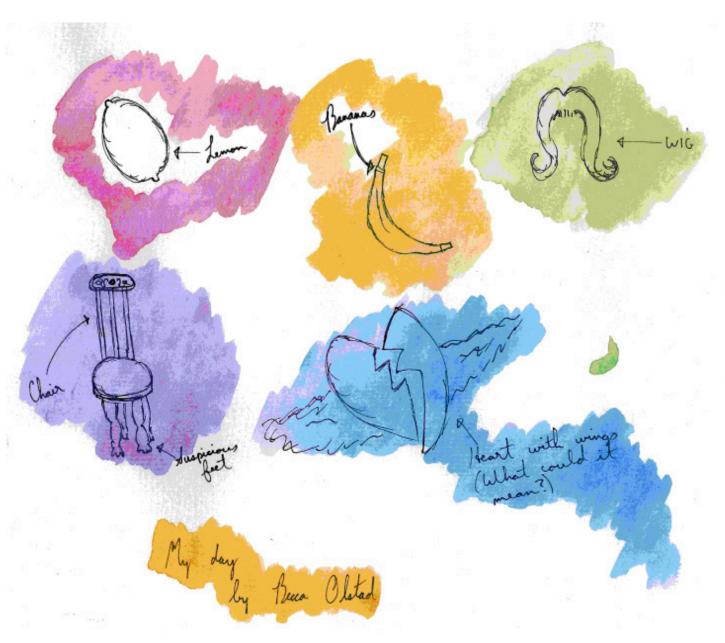
Additionally, by collecting these projects, many of them excerpts from longer essays and divisional work, we hope that younger students and future students at Hampshire can get a sense of the incredible possibility that PASA and Hampshire have to offer. We want future members of PASA to be able to look back at the PASAzine each year so that they will always have a sense of what PASA has been and what PASA can be.

With this, we proudly present to you the first edition of PASAzine.

-Jeanette Li & Chen Chen

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Becca Olstad • My Day

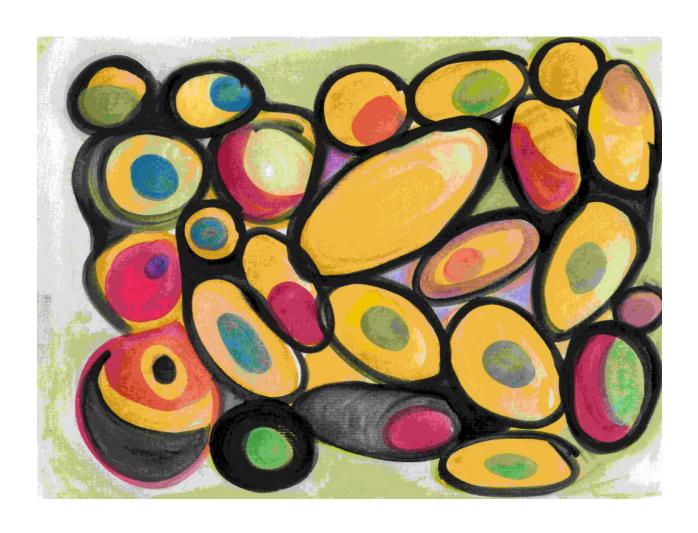
Carolyn Madeo

Ringolario

We play card games and street games—hopscotch, stoop ball, go fish, war—crouching cross-legged or jumping, across the pavement of your favorite brother's, new old apartment. He is the one you so often dream is trying to drown you in the coral pink bathtub in your mother's house. It is a hot day, and as your family struggles to unload boxes and furniture, I slip silently into the basement to find a garden hose to uncurl and drench you with. Up, on the sidewalk, with coltish legs splayed under you I play by the rules, ringolario one, two three. Chalk silhouettes and skully boards marbleize, flow through corner drains and eventually evaporate. Popsicle stained pout, hair matted to your face – I help to collect straight flushes, jacks, rubber balls, full houses.



Jeanette Li • Gold Fish
Still from Division III
Video: forget-me-not



Becca Olstad • Untitled

• Chen Chen

Patience

Six hours away from where I am. I wonder if it is still light out where you are, if you can still, from your window, see each flower on a tree you've never noticed before, and name the flower, the tree. I wonder if it is still light out, and if you close your eyes anyway, and if you can feel the light anyway. You are six hours away from where I am, from where it is long dark and where I am awaiting news of the flowers you've seen.



Yash R. Patankar • Elements 2

Becca Olstad

Plants Speak and Other Stories

An Excerpt

Author's Note: The following are excerpts from a longer written piece completed in Cuba through the Hampshire in Havana program in the Spring of 2009. The piece draws from interview material as well as personal experiences. For questions and comments about the piece or Hampshire's Cuba program, contact the author at rso07@hampshire.edu.

In Vedado, the streets are lined with trees: with palmas reales, with ceibas, with jagüeyes, with soda bottles and cans. The neighbors are growing flowers that creep over the fences and extend to create a bright pink canopy you walk underneath on the sidewalk, crushing pink petals as you step. The neighbors have potted plants growing on every surface, in the windows, on the balconies, pressed up against the fences looking into the street.

If this were a street in the United States, I would say that in this place full of varying flora I am alone. I have been taught in my schools and in my churches that I cannot know a plant beyond the way it feels, smells, appears, tastes. That I cannot feel sisterhood with the trees. I might try. I do, in fact, try.

This street is not in the United States, however. This is calle 27 in Vedado, La Habana, Cuba, and on some days you will find a small offering of food at the bottom of a ceiba tree, and the potted plants will sometimes keep their owners company.

"Of course I talk to my plants," María Eugenia tells me, nodding her head. "All the time."

"If you talk to plants, play music, it can be very good," Daniel says. "At least for the person. I don't know about the plants. It probably depends on the music, evidently it's difficult for plants to understand articulated language, but the way you treat a plant definitely affects its manner of growing, of living. If you treat it poorly, the plant will feel poorly."

"Yes, I arrive very early and I say 'Good Morning' to my plants and I touch them, and even though it doesn't seem like it, they hear and they thank you. It's like the hen who calls to her chicks. She doesn't speak but they understand. Plants don't speak, but they understand," says Tiano.

"Do you think that plants can feel pain?" I ask.

"Yes, I think so," Tiano responds.

"Do you feel bad taking leaves then?" I ask.

"No, you have to use her. We make chairs, tables, these things are from nature. There are some plants that we don't need, though, and so we shouldn't harm them."

"Why do you think we want to communicate with plants?" I ask Ernesto.

"It is in our nature to expand, we are always looking for more paths to explore. Why do we travel to the moon, to other planets? Man has always wanted to fly, and then he built the airplane. We know less about our own spirit than we do about the physics of things."

Taking a ride on the wild herb side

These are the plants, these are their names, these are their medicinal uses, if they have any. Some are just for aesthetic purposes. Flowers that are flowers. Grasses that are grasses. The rest can be cultivated, steeped in hot water for teas to cure indigestion or stress, to prevent infections.

I am running all over the community of Las Terrazas in the province of Pinar del Río with Tiano the perfume maker. There is no time for chitchat, there are too many plants that need to be identified.

"No me olvides," forget me not, he says pointing to the deep purple flowers.

"And you know the mango by now," he says. I'm not sure I do, but he points out the green fruits hanging from the tree and I do recognize them.

"Berbera verbena. To wash hair. You know what la tuna is, right?" he says, pointing to the cactus. "They serve it in the vegetarian restaurant here. Ah, and you can use the orange leaf when you have the flu. This is the galán de noche. It smells in the night, but not in the day. This is noni. It can be used to help treat cancer."

The plants are running together in shades of green. I scribble frantic attempts at physical descriptions of them in my little notebook. Fat leaves. Slick (green) leaves. Spindly stems. If anything has a color other than green it's the first thing I jot down. Mariposa—big white petals, un olor muy rico. I'm floating in between Spanish and English, guessing at spellings.

"This is the ilang tree." White speckled bark, medium green leaves, I jot down. "I make my ilang perfume using this. This is llantén, to refresh the stomach."

Las Terrazas is a community of about 960 people. White apartment

buildings with brightly painted blue doors and orange window trims are set in the midst of hills. Tiano and I are walking amongst these hills now, passing bushes big and small, flowers growing in and outside of gardens, past the trees and coffee plants, stopping to peek into neighbors gardens.

"Have all of these medicinal plants been planted here specially?" I ask Tiano. He shakes his head no, seemingly confused by the question.

Tiano walks ahead of me, his gaze searching to show me the next plant. Tiano is short and stout but moves quickly, with bright white hair and a naturally tan skin. Tiano has been making perfumes for his shop, "Ilang: Aromas Naturales" for four years now. Before, he had helped move the earth to build Las Terrazas.

Aromas Naturales is a small room with an intricately patterned floor and an accent wall built from stones with small plants called helechos, or ferns, growing straight out of the wall. ("Is it easy for them to grow there?" I ask Tiano. He shrugs and then gestures spraying them with water. "A little bit every day," he says.) There is a small wooden table with a basket of clear vials of his perfume. In the other half of the room there is a sink and counter top and clusters of dark bottles wrapped up in woven carrying cases with handles. Dried plants and herbs hang from the ceiling over the counter and sink. Everything is neat, and with the exception of a huge vase of purple water for decor, nothing is in excess.

"I don't think that aromas can make you feel sad," Tiano responds when I ask him how aromas can influence us. "What they give best is happiness," he says.

Out in the hills, I stop and lower my nose close to a plant.

"Oh no, that one doesn't smell," he tells me. I didn't think that it would smell. How do I explain to Tiano that I just wanted to get closer to it?

In my notebook full of scribblings about a sea of green plants (with the occasional "white" or "bright pink" flower), I write quickly, "I am a half-assed naturalist." But I am trying.

Carolyn Madeo

Hui Jia

"Deep in her heart, she knew that each step backward would only mean regret – the vector goes in only one direction, the homing geese must find their new nest, the ten thousand diasporas will never coagulate – there was no way back to the Middle Kingdom."

- The Revenge of the Mooncake Vixen, Marilyn Chin

I am being taught to listen to the nightly cautions of the flat bellied frogs – xiaoxīn, xiaoxīn, small heart – I am packing my knapsack full of tea, playing cards, intricately folded kites, a pair of embroidered baby shoes sewed together at the heel – gifts collected dutifully for my relatives.

I am memorizing phrases, idioms and characters –
I am training my hand to write instead of draw –
I am repeating sentences, perfecting the tones of – wo ài nín wàigōng

I love you grandpa – in a dialect that he has never spoken.

• Chen Chen

A Rich Heritage

you say I have a rich Chinese heritage you say I wish my father cooked like your father I wish I spoke another language at home I wish I were as interesting as you but what would really interest me is not a rich Chinese heritage but a rich inheritance yes a suitcase stuffed with money a suitcase shaped

like a card with an infinite amount of credit on it a backpack disguised as a boarding pass baggage i can swipe scan wave in the air to get in the air land in Xiamen for the weekend then unpack my things from my fantastic luggage like Willy Wonka on vacation

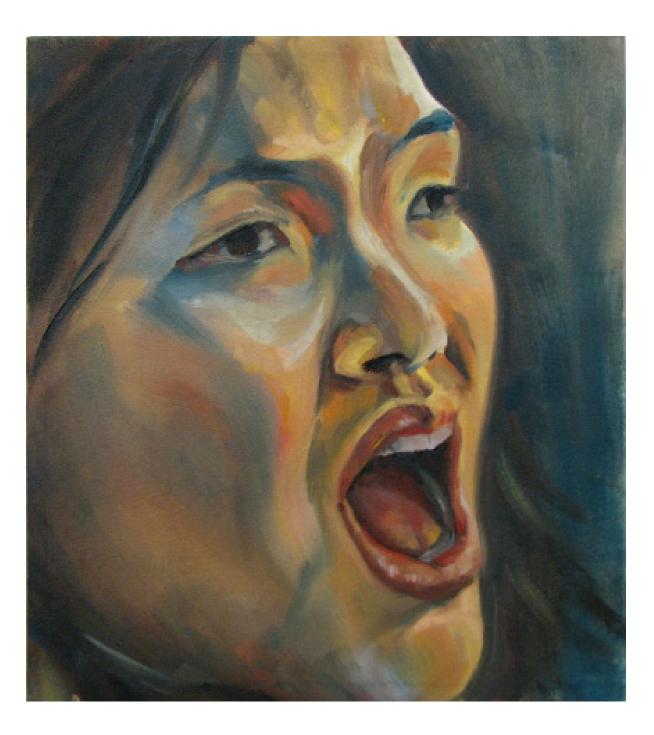
I'd see my grandmothers the grandfather who's still alive my aunties my uncles all trillion of them on my father's side my cousins including the smallest one whose first second and third birthdays i've missed whose birth I missed the eldest cousin whose wedding i did not attend the great-aunt

who always praises my Mandarin at least she did the one summer I got to see her well even that makes you more interesting you say that gives you material stories to tell but I don't want to interest you when the interest on my debt to family is more than I could ever

pay back when the material pressed against my face is mile after mile of Iowa Utah California Ocean and Cloud and No Plane Ticket the stories I have to tell are not cooking stories for you to savor are not tongue twisters for you to try out not rivers

of interesting for you to float through run your fingers through some currency of culture my tragic roots my hair so that after you can feel richer enlightened from my heavy history no here is the wealth I do have: fall days in Massachusetts a mother and a father who tell me how they live

even when they can't two younger brothers who love snow Batman and jumping up and down parents who tell me they will try their best to get me a ticket so I can go see everyone again they tell me this even when they can't afford to then come with me



Claire Lau • Scream



Elements 1

Black Sun of Denmark

'These late eclipses in the sun and moon portend no good to us'

Spiders in the marsh, forgetful of the season – or never having known it – mounted broad leaved cattail, giant burr weed and the petals of lilies; wide piers, a collection of odd bridges – each flexing and accommodating.

There was no scheduled eclipse, no sudden storm. The wind did not change, nothing seized to stillness. Olive-bodied aranea continued their web-waiting in the premature dusk.

We had come for the birds, hiring a local guide; flaxen, moonish Poul. You cupped the geodesic spider's egg sack, blowing on it like a dandelion's tuft, as the starlings boiled up from the marsh – a tornado of feathers and flesh.

Their movements were familiar: linens lifted and spread across a table, honey stretching through ice water, school children during a fire drill, all of the mathematical bodies you had once patiently tried to explain to me; lemniscates and Riemann surfaces.

The black sun of Denmark, undulating with the deftness of a single, senseless creature.

Jessica Wu

Silent Feminisms

Acts of Exclusion

Among the prevailing views within white feminist thought, "women's empowerment" is often defined by a break from the household and domestic sphere. It is suggested that in order to achieve one's own sense of "individuality", a woman ought to renounce her dependency from men, remove herself from family life, and gain financial independence outside of the home. Such views specifically identify motherhood a major source of women's oppression and a threat to liberation of gender heirarchies. (eg. Chodorow, 1978; Friedan, 1963). However, as many Black feminist writers have addressed, this is a view founded upon Western standards of empowerment and only address a position lived by privileged middle-class white women (hooks, 1984; Collins, 1968). Because for many women of color, their race and class conditions do not afford them the mobility to achieve the same standards of empowerment that these ideals advocate. Often, women of color have limited access to financial means that make it such that these prescriptions of "women's empowerment" are simply not a possibility. This is the case for many Asian immigrant women, as the patriarchal family structure may be too valuable to abandon because it adds to the family income and increases their accessibility to resources. Moreover, working class minority families have alternative family structures that operate on different political economies. The assumption that male domination is the driving force behind the private household sector implies a normative, nuclear family structure with separate spheres of economic function for males and females. For example, in Chinese American couples that run family businesses, collectivity and cooperation is usually regarded over individual gains, and do not determine separate categories of work. For working class minority families, both parents are often required to work in order to survive, and therefore do not retain the same division of labor systems between public and private roles.

Thus, the feminist assertion that entrance into the work force is a liberating experience neglects to account for the fact that women of color have always worked and do not see it as an empowering act. As Kim & Hurh (1998) have revealed in their research, very contrary to mainstream feminist doctrines, Asian immigrant women do not distinguish their participation in the outside work force as new or distinct from their domestic duties. In fact, they

regard their employment as extensions of their domestic obligations. Their study shows that if Asian immigrant women had the choice, they would actually prefer to stay at home full-time with their families. This speaks to the importance motherhood plays as a central role in the lives of Asian women. For many Chinese families, it is believed that marriage is necessary for carrying on the family lineage, which pays respect to ancestry and family elders. Chinese women's work is then regarded as work for the family and the group as a whole and not just for the benefit of men. To disavow motherhood in this way, one would go against cultural values that place importance on family and marriage. Asking Chinese women to claim "independence" outside of the home puts them in a position of choosing between their cultural heritage and their gender identity – a sentiment shared by Black women in the context of their own family structures (hooks, 1986; Taylor, 1998). For many Chinese families, this would be seen as a betrayal to customs and a woman would no longer even be considered "Chinese." Also, given the weight of the Chinese Exclusion Acts in American history, to leave their men would shame the face of their men who have already been emasculated by the racialized economic system in place. As it has been observed in other Asian women, often times wives will yield to the patriarchal family structure in light of group survival.

Engendering Stereotypes

While white feminists may have effectively confronted the place of white male domination within their own experiences as mothers, their theories fail to produce useful application for women of color. In effect, their assertions end up doing actual harm to the experiences of these other women. Indeed, the problem in white middle-class Western definitions of female empowerment is not only that it excludes women of color, but in neglecting their place, these ideas situate women of color in opposition to what is prescribed. Women outside of the desired category become identified as existing in conflict to what has been established. In other words, to say that a feminist is a woman who is strong, independent, self-sufficient, makes every woman who is not, weak, dependent, and powerless. This troublesome dichotomy has been at the center of the difficulty in having the experiences of Chinese immigrant women (and other ethnic women for that matter), to be taken seriously within feminist discourse. The ideals of women's empowerment regard Chinese immigrant women to be "backwards" or "too traditional," and overshadow the context in which Chinese immigrant women are empowered in their own ways. As a result, current feminist theorizing severely distorts their integrity as women, and minimizes their conditions under racialized and economic oppressive systems.

What is more, white feminist ideals operated in ways that to disrupt

the relationships between Chinese mothers and daughters. In a study by Sung Ha Suh (2007), Western standards of ideal womanhood put Asian American daughters' and their gender identities in conflict with that of their mothers. Sung explains that Asian immigrant mothers are considered "too maternal" and not "womanly" enough to model the characteristics their daughters see as "contemporary women" in the Westernized culture they are growing up in, and thereby silencing their mothering efforts. This attitude is perpetuated by mainstream standards of female empowerment that project Asian immigrant women in contrast to the outgoing, assimilated, woman the daughters are pressured to become. Sung identifies the model minority stereotype, and the "flower girl," or "China Doll" as images that have trapped Chinese women as a representation of the epitome of female subservience and discredits them from being seen as empowering figures.

Activism through Mothering

In neglecting to consider the significance of race and class that shape the mothering context of all women, the dominant feminist discourse has cast women of color outside their view as strong women. However, by "shifting the center" and placing Chinese immigrant women at the focus of feminist theorizing about motherhood, we can uncover certain ideas that bring forth different ways of thinking about their experiences. For women who live under the constraints of racism, sexism, and poverty, sometimes the conditions are so severe that they cannot directly confront these systems. Women's spheres of influence that indirectly resist oppressive structures then become an alternative means to gain a sense of strength from the little they may have in their lives. As Collins' (1986) work suggests for Black mothers, I think that mothering can be considered a form of resistance and activism as well. Motherhood exists as one outlet that serves as an important method of survival, both for the group and the individual woman. Black women's work in the domestic is a way to inscribe certain values in their children by granting them better opportunities to leave their proscribed "place" in society than they have themselves. While this manner of resistance may not be a pointed physical or outward form of protest, it is a spiritual and psychological one that is just as valid. Motherhood as a strategy is an interesting way to work within the system of oppression and transform the experience into an empowering one. Women of color in such position can appear dominated while slowly dismantling the oppressive power structures in place.

Likewise, I believe Chinese immigrant women have found ways to combat the oppressive systems they are subjected to through their work as mothers using strategies of resistance. In my own life, I have encountered what are "silent," implicated womanhood lessons from my mother's stories.

Although often her stories seem casual and innocuous, I have come to realize recently that some of her stories may have a specific purpose and an underlying message that she wants me to take in. Using my personal encounter as an example, I reveal that Chinese American women will often teach certain "feminist" ideals to their daughters. These are often unconscious manifestations, but should be considered nevertheless as "feminist" in their own right.

One day, on a visit to my grandmother's apartment, my mother got into a conversation with the nurse aide in my presence. The nurse aide had asked which daughter I was, in terms of whether I was the eldest or the youngest. My mother answered that I was the youngest and then went into the story about my birth. Since my cousin and I have the same birthday, my mother was complaining about the fact that on that day, my grandmother went to see my uncle that day instead of her.

"Not only did she visit him first, but she brought a chicken for him and all! (she scoffs) Some show of gratitude huh? I was always the one that looked after her. I paid for her apartment, and always visited her...and where is Uncle now? He hasn't been taking care of her, it's me who's sitting here, watching over her!"

Here, my mother was criticizing the patriarchal structure that Chinese traditions are based on, in which preference for sons over the daughters are common. This space of women allowed her to express gender inequality although indirectly, because confronting an elder face to face would be considered disrespectful and betray Chinese values. I think this moment was essentially significant because my mother was trying to teach me through the implications in this story that there is an absurdity in such gender inequalities and that I should it to keep me down because she didn't. My mother was trying to show me the strength of her womanhood to surpass such gender inequalities and come out proving herself in spite of it all. What I learned from this personal experience was that perhaps for my mom, mothering allows her the power to speak, to be heard, and articulate her feelings about an oppressive patriarchal situation in the family.

Mother-daughter relationships can offer a sense of hope that even in their situation, they can work to combat the system and make things better for the next generation to come. For Chinese immigrant women, child-rearing can be a self-affirming declaration of their humanity. Although the prevailing feminist theories may not deem so, I assert that Chinese immigrant mothers are indeed feminists in their very own right. Feminism is subjective and should not be dictated by a single definition. As I have discussed in the above, the dangers that arise when feminists target the family structure as a hindrance to women's liberation and promote the universal disavowal of marriage and family life. Therefore, a revision of this belief is necessary because it alienates

and stereotypes family patterns among minorities groups. The perspective in which feminist theorizing must take on need to confront on race and class differences and not only incorporate the views of women of color but allow their experiences to be heard through their own personal narratives.

As a concluding thought, I would like to note that this paper were merely reflections of my own encounters and are not meant to speak for every Chinese American woman. This essay was intended as an exploration of mothers that I have observed to enact certain mothering strategies, an act I feel can offer a possible model for connecting or understanding traits that may be common-felt. I do not propose my discussion to be taken as a generalization of all Chinese women's experiences. More research definitely should be pursued to confirm how widespread this strategy actually is, especially in regards to different class experiences. Also, a look at mothering strategies across genders in mother-son relationships would be a beneficial examination as well. Studies have been done on Taiwanese mothers and the conceptual creation of "uterine families" within the domestic space (Wolf, 1972), but no such discussions have been brought to immigrant families in the US so far.

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Jeanette Li • forget-me-not

Still from Division III

Video: forget-me-not

• Chen Chen

Little Song

Don't give me candlelit dinners, beach strolls.

Give me canvas & dynamite, big carving knives. Stuff two sets of hands can lock around & open. Give me fields of typewriters. Lead me blindfolded into a cave

filled with fat pencils sleeping upside-down, their bulbous eraser-heads threatening, at any moment, to drop down & rub away our hair. Yes, take me to your famous, professorly

inkwell, let us skinny dip in its red, corrective depths. & when we are as red on the outside as we are on the inside, when we are as blushful

as strawberries just licked, rolling about in the reinvented night, let us have each other. & paper.

Dan Yip

Tradition Chinese Medicine: Effects on Stress and Depression

An Excerpt From a Longer Paper

INTRODUCTION

Among all treatments for affective disorders, the prescription of antidepressant medications is the most frequently accepted, aside from counseling. Nemeroff (2007), as cited by Dang and colleagues (2009), reports that the standard classes of pharmacological solutions include tricyclic antidepressants (TCAs), selective serotonin reuptake inhibitors (SSRIs), serotonin-noradrenergic reuptake inhibitors (SNRIs), and monoamine oxidase inhibitors (MAOIs). These psychiatric medications often have questionable efficacy and adverse side-effects (Kennedy, 2006, as cited by Dang et al., 2009). As an alternative therapy, Traditional Chinese Medicine (TCM) has utilized herbs to treat mental disorders for hundreds of years (Dang et al., 2009). Recent research on traditionally used herbs, such as Paeonia lactiflora Pall. (Mao et al., 2009), Panax ginseng (Dang et al., 2009), and Magnolia officinalis (Xu et al., 2007), have shown antidepressant effects that are similar to effects shown in previous research with Western medications. Possible benefits of herbal medications over Western synthetics are fewer negative side-effects, low toxicity and higher efficacy (Pang et al., 2008). The bioactive chemicals of Eastern herbology show promise as an alternative to Western antidepressant medications.

WHY IS IT IMPORTANT?

Major depressive disorder (MDD) is a debilitating and potentially life-threatening psychiatric disorder that affects about 121 million people world-wide ("Depression," World Health Organization). The costs of depression are a burden to the patient, their family and their communities (Pang et al., 2008). Depression can disrupt occupational functioning and social relationships. Western synthetic antidepressants are typically designed to target only one or a limited number of receptors; this may contribute to their inefficient and unwanted side-effects (Pang et al., 2008). Mao and colleagues (2009) also speculate that the multiple active ingredients in some herbal formulae may act on multiple targets, maximizing the therapeutic effect and positive side effects, while minimizing drug resistance and unwanted side effects. A preponderance of evidence suggests that MDD involves multiple brain structures and chemicals. Therefore, it is possible that a medicine that targets multiple depression-

related receptors may have a greater therapeutic effect overall.

IMPLICATIONS FOR HUMANS

These results suggest multiple antidepressant-like actions of extracts of traditional Chinese herbs. The significant effects of TCM in these studies often parallels those of fluoxetine. This suggests that GTS, TGP, and a combination of honokiol and magnolol possess similar efficacy as a therapy for depressed populations when compared to fluoxetine. As with other animal studies, the results might not accurately be applicable to human models. For example, the administration of GTS at 100mg/kg might be impractical, as a 70kg human would have to take 7g orally each day. Such a large dosage might be unfeasible and expensive. However, lower doses of these extracts also exhibited significant antidepressant-like effects. The behavioral and neurological evidence supports that GTS, TGP, and honokiol and magnolol may be efficacious as antidepressant treatments.

Risks of self-medication and mixing medications are another danger of herbal medicine. Depending on the source and instructions of the herbs, it is possible that individuals will not adequately understand the medication. Individuals already taking prescription medications may think that herbal medicines are "harmless," when they might have adverse reactions when combined with other medicines. For example, Hypericum perforatum, more commonly known as St John's wort, is an herbal treatment for mild to moderate depression, but has caused adverse, and sometimes severe, reactions when combined with synthetic antidepressant medications (Pang et al., 2008).

INTEGRATIVE CONCLUSION

Collectively, these studies support the use of Panax Ginseng, Magnolia officinalis, and Paeonia lactiflora Pall. extracts as alternatives to the synthetic Western SSRI, fluoxetine. All three traditional Chinese medicines (TCMs) and fluoxetine decreased CMS-induced immobility time in behavioral tests, including the FST, TST and OFT, suggesting a reversal of behavioral despair. All three TCMs and fluoxetine reversed the CMS-induced decrease in sucrose consumption, suggesting anhedonia prevention. Ginseng total saponins (GTS) and fluoxetine reduced the CMS-induced latency for eating in a novel environment, suggesting alleviation of stress caused by environmental factors. Total glycosides of peony (TGP), a combination of honokiol and magnolol, and fluoxetine were able to decrease levels of serum corticosterone, which is increased by CMS, suggesting regulatory effects on stress physiology. GTS (100 mg/kg) increased levels of norepinephrine and dopamine, which are reduced in rat hippocampal tissue when exposed to CMS, suggesting a regulatory effect on levels of neurotransmitters. TGP and fluoxetine were able to

reverse the CMS-induced lowered level of glucocorticoid receptor mRNA in mice hippocampi, suggesting a normalization of negative feedback in the HPA axis. GTS, TGP, and fluoxetine were able to significantly increase levels of brain-derived neurotrophic factor (BDNF) expression, which was lowered by CMS, suggesting an increase in neurogenesis and neuroplasticity. A combination of honokiol and magnolol (20 mg/kg) was able to significantly increase levels of platelet AC activity, which was lowered by CMS, suggesting a facilitation of cAMP production and hormone regulation. Overall, the TCM medications, although at different dosages, were comparable to the effects of fluoxetine.

Further research might be conducted on humans with major depression disorder (MDD). There are many bioactive chemicals that are extracted from herbs. Since only the major bioactive chemicals were tested, the research ignored other potentially beneficial chemicals. The negative side-effects of TCM must be further tested. If TCM truly has fewer side-effects than Western antidepressant medications, further evidence will support the efficacy of TCM. Further research on the chemicals and effects of Eastern herbology may help to replace inefficient treatment options and, ultimately, to increase the quality of life for depressed populations.



Becca Olstad • gifts to the world



Jeanette Li and Chen Chen PASA Night Poster

Special Thanks

To Carolyn Li Madeo—

Thank you for being such an integral part of making this publication happen. We really couldn't have done it without you, and we're forever grateful to you for your hard work in helping us realize this vision. If we could, we'd give you all the sea creatures in the world. Too bad we can't.

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